TEACHERS COLLEGE RECORD

VOL. V MAY, 1904 No. 3

EXPERIMENTAL WORK IN ELEMENTARY SCHOOLS

METHOD OF SOLUTION OF EDUCATIONAL PROBLEMS

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Everyone believes that remarkable progress has been made in education in this country during the last generation. Yet the permanence of the many supposed advances must be determined by the extent to which a scientific method has been followed in the solution of problems. Up to the last few years, at least, such a method has scarcely been pursued. Educational literature shows the same questions recurring again and again, previous answers being rejected each time because they have been felt to be unreliable. In beginning reading, for example, we have enthused over the word, sentence, and phonic method in turn, and now refuse to accept any one of them as *the* method of teaching that subject. In arithmetic, likewise, the Grube method has come and gone; the Speer method has *come* also, and it now promises to go. So, unless our method of treatment is of the right kind, we are bound to continue traveling in a circle, solving the same problems over and over instead of advancing economically in a straight line; and the present decade will distinguish itself from the past only by its superior capacity to become excited over educational matters.

As I understand, the scientific method includes induction and deduction; it involves collection of data, the drawing of conclusions from them, and the application or testing of the con-

clusions. Also, the data, conclusions, and tests must be capable of duplication by other persons. This conception of the scientific method, drawn from the more exact sciences, has, of course, been more or less modified in its application to less exact fields, like psychology and child study. No doubt it will need to be modified much more when applied to education.

But, keeping in mind this latter fact, few persons will find a ready answer to the question — what articles on education, that have appeared during the last fifteen years, have approximated a scientific method? As a rule, our publications have revealed personal opinions or views, many of them highly valued, but they have shown a striking disregard of the method by which views should be reached.

I have heard two of my friends, who are specialists in education, remark recently that an article on education was scientific if the thoughts in it were valuable. But according to my understanding, a true scientist does not pretend to estimate the value of new ideas in his field until he has considered how they were reached. It makes little difference what are the bearings or consequences of a given idea, until it is known to be true. If educators had the same habit of scrutinizing their method first, there would be less excitement among them and fewer fads, but more progress. So far as I can remember, however, the method of treatment has never been a matter for careful consideration in the many discussions of our Society for the Scientific Study of Education (formerly the Herbart Club). We have found enjoyment, rather, in comparing views to see whether we agreed or disagreed. Certainly no one will deny that much good has been accomplished in this way; but a more scientific method would accomplish far more good.

Types of the best discussions of educational themes in the last ten years are Dr. John Dewey's *Interest as Related to Will,* and his *Ethical Principles Underlying Education.* But each of these is a more philosophic than a scientific treatment; each is largely an *ex cathedra* statement, a proclamation of the truth, which readers accept, reject, or lay on the table — as though they might decide what is true by voting. Most other articles that have attracted attention manifest the same point of view, but far less depth of insight.

Yet the two discussions mentioned are probably largely

deductive. That is, the author consciously drew on what he considered well established psychological, sociological, and ethical facts in his presentation, and merely applied them in the field of education. If these principles had been more clearly stated, and had been declared to be mere assumptions here, although reasonably well established in their respective fields, the procedure might have been clearly deductive, and, therefore, properly scientific, provided the conclusions were verified by decisive experiments. The difference in treatment need not have been very great, perhaps, but the convincing power of the presentations, I am inclined to think, would have been much greater. A large portion of our new theory of education has been arrived at in this way, *i. e.,* deductively. We have borrowed — or taken outright — important truths from psychology, child study, sociology, and ethics, and have searched out their consequences in our own field. Many sciences are dependent upon others in this manner, and it is perfectly legitimate to proceed further in this way.

But, if there ever is a science of education, the bulk of it will probably need to be inductive. At least, we cannot long continue to depend mainly on other sciences for good suggestions; most of the problems will have to be solved independently and inductively. When examined with reference to accomplishments in this direction, education is found to be sadly lacking. In one respect, however, work of the right quality has already become well established. In the universities, research work on historical problems, and on present practices in various countries, has resulted in a number of monographs of very great value, and many more are likely to follow in the near future.

This is excellent, so far as it goes. But books can never be the main source of new ideas in education any more than in biology. Actual contact with children must be the primary source. This is already an established fact in child study, but it is not so definitely agreed upon in the closely allied field of pedagogy. It is one of the tasks of the future to establish this proposition firmly, and then to define a method of investigating problems of instruction that shall be worthy of the epithet "scientific."

The following articles are brief accounts of beginning attempts on the part of the authors at the experimental treatment of practical school problems. Their purpose is both to show

how students are endeavoring to attack some of the difficulties of elementary instruction at Teachers College, and, so far as possible, to arrive at reliable solutions. The test of reliability kept in mind has been the question as to whether or not other persons could collect substantially the same or equivalent data, and deduce substantially the same conclusions from them. Neighborhood work has been included under the term "school," because the institution called the "Speyer School" includes both a day-school and settlement work, and the school of the future, in our estimation, involves both phases of work.

We feel no need of apologizing for carrying on experiments in this school, because any school in which intelligent experiment is taking place is far more likely to be properly progressive than one in which no experiments are expected. It is the latter kind that is to be feared. On the other hand, all parties concerned feel that an apology for the crudeness of these efforts is fully in place, when the latter are judged from the scientific point of view. These are nothing more than beginnings, and while conclusions are attached to the articles, they are added with the understanding that very much further investigation is necessary in each case before reliable solutions can be reached. In the main, we have been merely feeling about, in order to find out how to go to work in this field. While there is nothing strikingly new in these accounts, their preparation has brought to light a number of interesting suggestions for our own use, in the future.

In the first place, it is essential in such work that some very definite problem be conceived and kept in mind sharply. It is very easy, in accordance with past practice, to drop into a description that has no particular purpose; no definite relation to any specific problem, and hence no outcome; and that danger has not been fully avoided here. That there are plenty of such problems, too, which belong primarily to education rather than to child study or ethics, has been strongly impressed upon my mind. For example, how should we teach children how to study? Are there both general principles of study, and special rules peculiar to each branch of knowledge? If so, what are they? What should be the basis of omissions in our overcrowded curriculum, and what should be the resulting omissions? What should be understood by thoroughness in common school studies? How can the subject matter of history, geography, and similar subjects,

be organized so as to approach more nearly to the organization of good literature? To what extent, and how, can the theory of the elementary school find an outlet in action, or be applied in daily life? Should the elementary school provide for the proper occupation of the leisure hours of its pupils, as well as for the serious work of life? If so, how should it be done?

Most of these problems, however, are too large to work on successfully. That has been one of the most serious difficulties in the accounts here printed, namely, the tendency to undertake altogether too large a question. Probably each one of those just stated should be broken into several parts. It requires much care, however, to do this properly.

Another evident task is to develop a proper appreciation of data, as the necessary basis for all conclusions. Educators have so long been in the habit of occupying themselves largely with the conclusions that they have reached, that it is particularly incumbent upon us now to nurse a love of mere elementary facts of observation — the collecting habit, if you please. There is no danger of our developing any craze in this direction very soon. The reliability of such data will, of course, always be a matter for the closest scrutiny.

By these remarks I desire to express my conviction that there is a great necessity for trained workers in this field. As stated at the beginning, we have been drawing on allied sciences with much profit. But many of the problems that are now presenting themselves cannot be really solved without an inductive method very carefully applied. This, too, must probably be the peculiar function of university departments of education, in distinction from normal schools. The academic departments of normal schools rely upon the universities for original investigation in scientific fields; the professional departments should look to the university in the same way. The fact that the professional departments of normal schools have had little reason for expecting help from this direction thus far, indicates how much of a revolution must take place within university departments of education before they will be of much account. So long as they are without practice schools, and their instructors lack previous intimate acquaintance with school work, they not only will fail to solve the practical school questions, but they will fail even to be reliable judges of the worth of the educational literature that

has already appeared. In my estimation, only when university departments of education are provided with practice schools, when they have time and energy to use these schools constantly, and when the instructors concerned have adopted the habit of criticizing one another's work helpfully from the viewpoint of scientific method, only then, I say, can we even hope for a scientific method of investigation of many of our most pressing problems.

HOW TO DIRECT THE CHILD'S READING IN HIS HOME, IN BOTH METHOD AND SUBJECT MATTER

By IDA C. MESSER, A. M., Western Reserve University; Teacher in the Speyer School, Teachers College

We have long recognized that one aim of teaching literature in our schools is to lead the child to discriminate between good and bad reading matter, and so to mold his taste that the bad will make little appeal to him. Our reading books have, therefore, been studded with ideal selections, the regular textbooks being supplemented by the best classics. Still, too often have our efforts failed to make the child so love good literature that he will seek it out for himself. Our work has not penetrated deeply enough to overcome the evil influences which surround him when he is not under our guidance. Aside from that, we have roamed about with him in an ideal realm, but have left him to a great degree helpless and alone to grapple with the newspaper, the magazine, and the library book — three factors that play such an important rôle in molding the mental attitude of the family.

The sixth grade of Speyer School is making an attempt to knit together, through the reading lesson, the real and the school life of the child, and if possible to raise the real to a more ideal plane. It is trying:

(1) To undermine low standards of reading in the home, by interesting the family in the better part of their ordinary reading matter, through directions given to the child at school.

(2) To supplement the home reading of the family.

(3) To foster in the child a spirit of helpfulness, by having him find articles of special interest to members of his family, his classmates, and other classes in the school.

(4) To keep alive, develop or mold the child's sense of humor by means of the funny story, the pure joke, the cartoon, encouraging him to use these as a laughing tonic when the family is gathered about the table.

Realizing the large influence the newspaper exerts in these homes, the daily press is frequently studied during the literature period. A dozen of the most popular morning and evening papers are given to the class for study and comparison. The pupil first examines the headlines. Logically, he has a right to expect the most important news under the most glaring headlines. This illusion vanishes, however, after the thought in the article has been sifted out and the actual fact — rather different from what the headline has promised — is found in a few words at the end of the column. His confidence in these blazing head-lights is shaken, their fascination for him begins to wane, for they lack truth.

Then he makes a study of the style. In one paper he reads, " Three Lives Nearly Put Out by the Knife," the article describing in minute detail the murderous scene and all the brutalities of the characters engaged. In another paper the heading reads, " Three Men Injured in a Fray," and the facts are stated briefly, with no appeal to the sensational.

The question then arises, " Has the fact any value for us at all? " This leads directly to the subject matter about which the newspaper ought to keep us informed. The municipality interests us first of all. We want to know about its administration, its progress; what its educational institutions are doing; what it offers in art and music to refine the emotional side of our nature; its great calamities, in order that we may learn to avoid them, if possible; the lives of its great men and women, as they pass from us, that the good emanating from them may penetrate our lives. Then we want a general knowledge of government events at Albany and some idea of the administration in Washington. If, in addition to this, our editors have the goodness to point out the large thoughts and works which are molding the civilization of the day, their work is complete for our purpose.

With this outline before them, the children analyze the various papers. It might be an interesting and instructive experience to some of the editors if they could be present when the " valuable " articles of their papers are selected, and the amount of space given to reported but unconfirmed facts, or to indifferent or worthless

matter, is placed in juxtaposition with the amount devoted to material of real value. Of course, there is a great deviation, in this respect, in the various newspapers analyzed; and, though the object lesson cannot at once change a perverted taste, it makes an eloquent plea for our good newspapers. The children appreciate this without comment from any higher authority.

Our standard roughly established, and the more worthy papers selected, our next duty is to determine the approximate time we ought to give to the reading. By going over a number of headlines, together with the articles under them, it is found that the additional information gained from reading the entire article frequently does not compensate for the time spent, and it thus becomes clear that a knowledge of the headlines is often sufficient. Again, it is found that on great national questions, like our Panama Canal project, or international affairs, such as the Russo-Japanese war, our "weeklies" give the essential facts in much smaller compass than the "dailies"; also, since the former have longer time to find out the truth, they do not refute so frequently, and are, on the whole, more reliable.

This brings us to the actual experiment of finding out how much time ought to be allotted to the daily press. Five of our best papers were perused and their essential facts culled, in time ranging from twenty to thirty-five minutes.

The school has now given the child some standard by which to choose the right sort of paper, it has taught him something about how to read it, and also how much time he may profitably spend upon it; but the matter cannot be dropped here. The value of it all lies in putting the theory into continued practice, and of this the school must keep itself informed in the future. The results will show in the kind of statement the child makes about newspaper articles he has read, and in the clippings he brings. Our experience thus far shows that the pupils are on their guard when they see the emblazoned headlines; that they weigh the facts stated with some care; select their clippings with regard to the relative importance of the subject matter; and that they actually read the essential facts. All this is partly because the work forms part of their regular program of exercises and they are expected to make occasional reports.

The monthly magazine claims our attention next. This is chosen, not only because it contains so large a portion of our con-

temporaneous reading matter, but because it enters so many of our homes and can thus be made of common interest.

For the sake of expediency, each child now takes his home magazine, or chooses one from the library, and makes himself responsible for its contents. He searches the "table of contents" with a view to finding:

(1) Articles of interest to his home people.

(2) Articles pertaining to the work of the other classes of the school. (A committee keeps the class informed of the main lines of work going on in the school.)

(3) Articles that will be helpful to his classmates and himself.

After the child has checked the articles which seem to him of value, the teacher runs over them, rechecks those which she considers good, returns the magazine to the pupil and he catalogues the articles on library cards. (These cards the class buys out of its penny savings fund.) For all articles which specially interest him he makes out two cards, one to be added to his own catalogue, one for the school. Cards of other articles are taken to those whom they would most interest. Anything giving information on any phase of the regular class work is assigned as a lesson, or read at some time when it will make its greatest appeal. Other articles are used for special exercises, or set aside until needed, when they may easily be found through the children's catalogues. During February the pupils catalogued one hundred good articles.

The old magazine must not be overlooked. Desirable articles are taken out and bound into booklets by the children. They may then be taken home and kept until they have been read by all interested. They also make a vital addition to the supplementary reading in the school. The pictures, likewise, are an important element in the old magazine. When these have been cut out, classified and mounted on large cards, the pupils see illustrated, side by side, the modes of living, the kinds of people, the industries and customs of the oriental nations now so prominently before us. They thus make a collection of pictures, of service not only to their own class, but also to other classes in the school. Every department of their work has been elucidated by the articles and pictures thus gathered. But, above all, the pupils have learned to examine with the thought of being helpful; they have studied with greater interest since this reading matter gave a spark of life to the text-

book assignment; and they have disseminated a leavening influence even in those homes which seemed most bound in darkness.

Another phase of our work has been the greater utilization of the school library. Our work here is:

(1) To make the child familiar with the various departments of the library and their contents.

(2) To teach him to gain some idea of the contents of a book from its title, its author, its index; to find out its style by reading short passages; to know substantial binding, good illustrations, and the best paper and type.

(3) To enable him to use the card catalogue and the reference books.

(4) To make him love to linger among books, by letting him rummage through the library at his will during certain school periods. (He afterwards reports on that which interests him most.)

(5) To lead him to find books which he *wants* to read, take away and talk about in his home. This work is frequently substituted for other home work, and the child is given an opportunity to tell his classmates about the most interesting features of his book. By supplementing the textbook with reading matter from the library, the child's intellectual horizon is widened, his school work becomes affiliated with the kind of reading we desire him to do when he leaves us; and the older members of the family, who would not sit down to study the ordinary home assignment with him, find a common interest in the library book.

In connection with the serious matter which we find everywhere, we do not lose sight of that which will make us laugh. A cartoon of general interest, witticisms, good clean jokes, funny stories, are pasted into a book labelled "Our Tonic for the Sick." After we have enjoyed it, and have passed on the fun at the family gathering, our book is sent on a mission of evoking smiles from our sick friends.

Our reading lessons, thus conducted, have engaged the voluntary self-activity of the child in his home; they have directed him to utilize the good in his environment; and they have interested the home in the school, so that one is assisting the other. The school work of the child is no longer an isolated entity, but is weaving itself into the larger interests that will occupy him later in life.

THE ORGANIZATION OF SUBJECT MATTER FOR THE TEACHING OF GRAMMAR GRADE HISTORY
THE USE OF THE TOPIC

By HENRY SUZZALLO, A. M., Lecturer in Elementary Education, Teachers College

There has been much complaint against the teaching of history in the elementary school, particularly the teaching of American history in the grammar grades. The charge has been frequently made that one of the richest fields of human knowledge has, in our teaching practice, degenerated into a mere mnemonic drill on long lists of historical facts which have too often borne little relation to each other and conveyed little meaning to the learner.

The Responsibility of the Textbook for Poor Teaching. — One prominent cause of this condition is the poor historical training of the average teacher. She has not had sufficiently thorough knowledge of the materials of American history to present the facts in such an order as to interest the child and lead him successfully toward that feeling for and understanding of history which should be part of the mental equipment of every adult. Without historical training and too often without pedagogic insight, she has relied upon the elementary textbook for her historical facts, and for the order in which to present them to children. In consequence, our teaching of history in the elementary school has reflected every defective method found in the organization of material of our school texts.

One Fundamental Weakness of the Textbook its Twofold Function. — This need of the teacher, both for historical facts and a method of organizing and presenting them, has led to one very fundamental weakness in our textbooks themselves, which may account in large part for the mechanical teaching. The textbook writer has attempted to make the textbook serve (1) as a book for ready reference on ordinary historical facts and (2) as a book of special method for presenting the subject. These two purposes are in a sense antagonistic. A good reference book involves the inclusion of all facts more or less frequently mentioned in current life. On the other hand, a good organization of historical facts for a special teaching method in-

volves a careful selection of essential facts only. This double function of the textbook has prevented a full degree of success in either direction. In particular, (1) it has interfered with a wise acceptance and rejection of material; and (2) it has interfered with the best organization of facts in groups, and in sequence of groups.

The idea that a text should be a sort of book for ready reference on elementary facts in the field of American history leaves us without an adequate standard for the selection and omission of details, and without the willingness to apply a standard if we had one. Therefore, any fact that is likely to be mentioned frequently in current life is included, whether it is vital to some large point or not. Naturally, in such selection of material, emphasis is placed on individual and unrelated facts rather than upon groups of such general facts as constitute movements, policies and the like.

The Value of the Topic as a Basis of Selection of Material. — The remedy certainly requires, first of all, an abandonment of the double purpose mentioned, and a rejection of the use of the text as a reference book. In the second place we should decide what general movements in the development of American life the child ought to understand, and then formulate these in adequately expressive topics. Then we shall have an adequate standard for the inclusion and exclusion of details. No sub-topic or lesser detail should be taught unless it ministers with considerable directness to the better understanding of what is implied in the topic selected.

It is because this plan has not, in the main, heretofore been followed by textbook makers that a poor organization of subject matter has been the rule. To be sure, every textbook recognizes the need of some organized and purposive choice of material. Division and chapter titles, paragraph and marginal headings are topics and sub-topics contributing to some organization. But such topics are too frequently subordinated to mere facts, as such. Instead of taking the lead and determining what details should be included, and in what order, the topic is too often decided upon after the details have been selected, and is made to serve merely as a sort of abstract bond, tying them together with a semblance of logical consistency. A topic in this sense is by no means an effective standard for the selection and organization of material;

it is, rather, a formal classification or heading superimposed over certain previously selected facts. The careful selection of essential material, with every unnecessary detail omitted, and the final organization of such selected material are absolutely necessary in good teaching, as they are in every good purposive presentation of subject matter.

Standard Literary Narrative an Illustration of Good Selection and Organization of Material. — If we turn from the school to other institutions or agencies that teach, that present facts in orderly sequence and relationship for some express purpose, we find that very definite standards for the selection, omission, and relating of materials hold. In any good narrative, for instance, a standard novel or a standard drama, we find large points influencing directly the selection and omission of details. Certainly in such standard art forms the author does not introduce a heterogeneous mass of details and then classify them under more or less abstract and unrelated heads. The process is quite the opposite. The novelist or dramatist selects his main points, which are to constitute his plot, gives them an order appropriate to his purpose, and then proceeds to find the detail that will embody, make clear and develop the large thought in mind. In classic literature no unnecessary material is incorporated; every sentence tells. Whatever pertains to something aside from that which at present concerns the action of the narrative is omitted and there is no protest from any one. But there would be protest if it were included, for it would mar the unity of production.

We do not maintain that the process of presentation in teaching is entirely like that in a novel or a drama. But there is a similarity so far as they are both concerned with such a choice, omission, sequence, and relation of material as will interest and instruct. Take any good drama lasting three or four hours. It has surely as many details as appear in several hours of instruction at school. Yet we remember them fairly well without any great expenditure of energy in a conscious effort to memorize. We remember them because we see them in connction with some larger, meaningful point. We remember them in orderly relation — a relation that we perceive, mainly, because of the skilled selection and arrangement of subject matter in accordance with an express purpose, and, partly, because there has been no intrusion of unnecessary facts to confuse our perception of these relations.

These general principles relating to selection and organization of material seem to have equal validity in the teaching of narrative history and in the presentation of literary narrative. Literary narrative certainly gives a clear illustration of the operation of the principles suggested. Perhaps the analogy will be of further use in making more clear certain other principles peculiar to the teaching of history in the grammar grades. But before we can make further comparisons we shall need to know how far literary narrative and the teaching of history in the grammar grades have common ground. When we have determined this, we may better answer the question: what further principles or methods can literary narrative suggest to the teacher of history in the higher elementary grades?

Factors Determining Method of Presenting Facts. — The method of presenting any series of facts must depend upon three factors: (1) the aim or purpose of the presentation, (2) the present capacity of the person to be taught, and (3) the peculiar nature of the material to be presented. We may now consider each of these in turn.

The peculiar aims of history instruction in the grammar grades are very largely conditioned by the intermediate position that it occupies between the primary school and the high school, in both of which institutions the teaching practice with regard to history is fairly well established, at least sufficiently so for our purposes. In the primary grades historical instruction consists of history story and biographical narrative. The stories are selected for their interesting narrative without large regard for the information they give. They are selected from all periods of history without special attempt to cover a whole field, or to give historical perspective. In the high school, while interest in narrative may be a factor, the aspect of historical information in sequence and perspective is an important matter.

Similarity Between Presentation in Good Literary Narrative and History Instruction in Grammar Grades. — The grammar school occupies a place between these two. It finds its aims, methods and materials in the making of the transition between primary history and high school history. It presents the stories of history, as in the primary grades, but now with perspective, covering the field in orderly sequence. More facts

are given, but only as they contribute directly to an appreciative feeling for the situations and movements of history, not as detailed intellectual information.

Thus in the grammar grades, the aim of history teaching is to give the children an appreciative feeling for the situations and movements of history through a series of connected narratives presented in historical perspective. This is very closely the purpose of any good literary narrative. What we want to give in the novel or the drama is not mere information, but an appreciative feeling for situation after situation as they succeed each other in orderly sequence. Though the material which is the medium of narration differs, the aim in both cases is to create a sympathetic understanding of definite situations. The material in both cases is narrative, personal or historical, or both. In both cases the persons to be affected have had certain experiences, more or less unrelated and fragmentary, which serve as a basis for interest in and appreciation of what is now presented in an orderly manner. In consequence of these likenesses, we may expect to find the model of literary narrative helpful at many points in suggesting method for grammar grade instruction in history. It may be well, therefore, to keep the similarity in mind.

Application of Principles to Use of Topics. — We have already suggested that the proper treatment of the topic is one means of getting at a better teaching method. From the standpoint of the use of the topic, let us now make some critical and constructive application of the principles that have been definitely stated in our argument or implied in our illustration of good presentative method.

At the outset we are confronted with the problem of the choice of main topics. What topics shall we have? How much shall they include? How shall they be best expressed? What shall be their sequence and relation? The answers to these questions are determined largely by the nature of the subject matter — the aim of our teaching and the nature of the child, of course, being kept in mind. Our main topics should represent history stories. They should be narratives fairly complete in themselves, though related to those that precede and follow. The inclusiveness of a single story should be determined by the nature of the incidents and situations in the historical period

studied. The material under a given main topic should extend from the beginning to the end of some real, rather clearly defined movement in history. The topic should express the significant thing in the situation or movement, so that it may be a proper and definite standard for the inclusion and exclusion of material. And, lastly, each main topic should assume some connection with the preceding main topic or story. Such an implied transition is necessary that there may be true historical sequence.

Criticism of Main Topics in Texts. — Let us see how far our textbooks have met these standards. One or two examples from the treatment of the earliest period of American history will suffice.

Thomas's *History of the United States,*[1] a book intended for use as a text in the grammar grades, gives the following main topics: (1) Discovery, (2) Colonization, (3) English, French and Indians, (4) Struggle for Colonial Empire, etc. These topics may properly classify in right sequence the historical material for the mature historical student, but they do not meet the standards we have imposed for the use of historical material in the grammar grades. The terms "discovery" and "colonization" are purely abstract, logical terms of classification, the meaning and relation of which are clear only after the details of the period are known. They suggest little of the narrative which is to attract the interest of the child, and express nothing of the significance of the period from the standpoint of the teacher of grammar grade history. McMaster, Montgomery, Mowry, and others impose the same kind of adult classification of material in their texts for children.

It must be remembered that classification always involves a point of view; and the point of view of an historical scholar, or even of a mature man possessing some knowledge of history, must be very different from that of a writer of children's texts, or of a teacher of grammar grade children. Even if our teaching experience did not give such positive testimony as it does, we could almost say, on purely *a priori* grounds, that any such transfer of classifications would be ineffective. We must classify our material according to our own peculiar and definite purposes. How much better is the classification for teaching pur-

[1] Thomas. *A History of the United States.* D. C. Heath & Co. 1894.

poses given in Davidson's *Guide to the Teaching of American History*.[1] Notice the following topics:

1) How the Europeans found a new world.
2) Spain takes possession of the new world.
3) Spain has a rival: France.
4) The second rival: England.

Here each topic implies a narrative in which children will be interested. Each topic expresses the significance of each story as related to those which precede it. The whole movement of history during this period is suggested by the feeling which the topics arouse.

The Content of the Main Topic in the Sub-Topics. — Let us now turn to the content of any main topic as suggested by sub-topics, which, in a sense, are the lesser scenes making up the larger scenes, the lesser movements which give meaning to the larger movements. Let us take the main topic or story treating the "finding of the new world," which is the field covered in the first large topic given by almost all the authors. Under the main topic "Europe finds America" McMaster[2] gives the following sub-topics:

1) Nations that have owned our soil.
2) European trade with the East: the old routes.
3) New routes wanted.
4) Columbus seeks the East and finds America.
5) The Atlantic coast explored.
6) Why the continent was called America.
7) The Pacific discovered; the Mexican Gulf coast explored.
8) Spaniards sail round the world.
9) Importance of Magellan's voyage.
10) Search for a Northwest passage; our North Atlantic coast explored.

The main topic, "Europe finds America," as a large single, beginning topic, is quite satisfactory from our standpoint, but it has not been used as a very definite standard for the

[1] The writer is indebted to the author of this book for the privilege of examining the manuscript of his work.

[2] McMaster. *A School History of the United States.* American Book Co. 1897.

selection and rejection of minor topics. (1) "Nations that have owned our soil" and (6) "Why the continent was called America" should hardly have been made sub-topics, because they make no necessary contribution to the main topic — "Europe finds America." It may be well enough for children to know the "nations that have owned our soil," but it is not at all essential at this point. There is a definite violation of historical sequence in the introduction of that sub-topic here — a violation which tends to lead the child's attention away from the time and its problem of reaching the fabulously rich East by a new route. It may be altogether desirable for children to know "why the continent was called America," and they should know sooner or later. But it does not contribute directly to the main thought in mind — "Europe finds America." It could be taught as a merely incidental detail at any convenient place where the association seems proper in the course of instruction.

Once the sub-topics are selected with reference to a main topic, they are subject, in large part, to the same standards that we have mentioned as determining the inclusiveness, statement, relation and sequence of main topics. Each sub-topic should include a definite situation, something of the significance of which should be implied in the sub-topic so as to make it, again, a definite standard for the selection of material. Its order in the sequence should be such as to carry the story from the preceding sub-topics one step further in the telling of the narrative implied in the main topic, just as the individual scenes in a play advance the plot of the larger story. In reading the sub-topics given by McMaster, even with numbers (1) and (6) omitted, one has the feeling that they are given in a form and sequence indicating that the author was more interested in speaking of discovery and exploration in general, than in showing that certain of these facts led to the "finding of America."

An arrangement of sub-topics that more nearly meets the demands we have laid down is the following:

I. How the Europeans found a new world.[1]

1) The old world, and how Marco Polo taught the Europeans geography.

[1] In presenting these sub-topics the writer has taken the liberty of using material given in Mr. Davidson's book, already mentioned, and modifying it to suit his purpose.

2) The route to the East, the land of riches.

3) Sir Henry the Navigator sails south to reach the East.

4) Columbus sails west to reach the East.

5) The Cabots seek a northwest passage and find North America.

6) Columbus tries again and finds South America.

7) Vasco de Gama wins the prize for Portugal.

8) Balboa discovers the Pacific and encourages the belief in a western route.

9) Magellan's ships go round the earth and prove America a new world.

It will be noticed that much material frequently incorporated as sub-topics in our texts is omitted by assuming a definite, meaningful main topic as a standard for selection. Among the customary topics omitted in this case are the following: "The Indians," "Ancient America," "The birth of Columbus," "The early life of Columbus," "The voyages and discoveries of the Northmen," "Further discoveries," and "Other discoveries in America."[1]

Topics May Vary — but General Principles Hold. — Of course there is no one set of main topics and sub-topics which has a pedagogical value above all others. One set may be quite as good as another. The order of presentation of material may readily shift with a slightly changed point of view. But there seem to be some general principles regarding the use of the topic which are helpful in selecting and arranging material. These we have attempted to suggest. The textbook writer, who is, in large part, the maker of method for the average teacher, does present one particular order. He should be responsible for giving us one of the many good arrangements which are possible. Even if he accepted our statement of aims for grammar grade history, his set of topics need not be such as we have suggested. He ought, however, to present a special method which is based on the results of following certain principles for the organization of material, and which is proven valid by experience in classroom teaching and other similar fields.

[1] See the school texts by Eggleston, Fiske, Montgomery, Mowry, Thomas, and others.

TEACHING CHILDREN HOW TO STUDY HISTORY

By GEORGE EDWARD MARKER, A.B., University of Illinois; Graduate Scholar, Teachers College, 1903-04

A class of sixth grade pupils of the Speyer School, averaging in age twelve and one-half years, was placed in my charge for a period of ten weeks. Part of the time we were limited to four periods a week, each recitation period being thirty-five minutes in length. Later, we were given five such periods per week. Owing to the number of daily recitations outlined for these pupils, I deemed it advisable to assign very little work outside of the regular recitation period.

My work with this class was to consist of two parts. First, I was to continue the teaching of that portion of American history which deals with the early struggles in our national life. Second, I was to assist the children in the formation of right habits of study, so that they might in the future study their history lessons intelligently, without the supervision of a teacher. As only the second phase of the work is to be considered in this paper, the method of teaching the history will not be discussed, except in so far as it assists in the illustration of the points under consideration.

I found that the class was provided with a primary textbook in history (McMaster's), and that eleven of the sixteen members had read the book through soon after it came into their hands. This voluntary reading had, of course, taken place without much thought. There had been little or no attempt to memorize or to try to understand difficult topics; no selection of parts to be read, except in so far as certain stories had appealed to childish interests while others had not, and no purposeful neglect of minor details. One part had received much the same consideration as any other, whether it was the story of the buffaloes upon the western plains or the marvelous achievements of the nineteenth century.

The future lessons from this text, then, could promise little more to the pupils than an uninteresting grind. They had only vague pictures of historical situations, but were satisfied; in fact, they would gladly have laid the book aside for something new and fresh. Yet no teacher will say that the text had been mastered or that it had fulfilled its mission to the class. How was I to set

to work to teach those children to study history in a way that would arouse new enthusiasm and produce satisfactory results?

The problem was so difficult that there is no pretense here to its complete and satisfactory solution. This is merely an attempt to contribute something toward that end. What is presented is the result of schoolroom practice under the conditions set forth above. And, while it may lack value in many respects, the methods and devices used have brought some very encouraging results, and have marked out a way for future experimentation.

1) *Relative Values.* — It is not to be expected that a teacher would enter upon work of this nature without some preconceived ideas of the difficulties to be met. In this case it was anticipated that the pupils would be unable to distinguish relative values, and that my first work should be to help them discover the difference between an important and an unimportant fact. With this aim we talked about the meaning of such statements as the following: "If these hardy early settlers had been animated by a different set of social ideas, the whole character and trend of our institutions would have been changed." "Single events in history are not important unless they reflect the lives, thoughts and emotions of the people." "Men's acts are the result of their thoughts and feelings."

In a general way we reached the conclusion that "a fact in history is important when it can be shown to have had a significant influence in stimulating and encouraging private and public enterprise, or in opening the way toward greater liberties than were enjoyed before." As a working principle it served our purpose well; but I would have it understood that this crude statement was not committed to memory and arbitrarily saddled upon each small historical event; nor that this was considered a positive means of determining for all time whether a fact should be received into, or rejected from the realm of important ideas. I have merely attempted to embody in words the chief point suggested by class discussion, and, if possible, to cause each pupil to *feel* the difference in the worth of historical facts without any conscious attempt at the application of a rule.

2) *Organization Under Large Topics.* — The class had just begun the study of the development of our government under the constitution; hence we took the beginning of our national

life (1783) as a starting point. All future study was then to be included under one large topic, "The building of the nation." A whole chapter in their textbooks which had been previously studied was assigned for review. The reading began at once, while the idea of the standard of selection of values was fresh in mind. The chapter assigned was "A better government needed," or "The difficulties of our government under the Articles of Confederation." The pupils were urged to read somewhat rapidly, but thoughtfully, keeping a sharp lookout for the important facts. They were told that there were three things in the lesson that were of special value in our present study. Could they find them?

When the reading was finished by the majority of the class, we reviewed what had been said concerning the relative value of topics. Every pupil who selected a topic as important was asked to show why he so considered it.

The second chapter of the text, treating of the struggle over our commercial relations from 1789 to 1815, was likewise studied as one large unit, and discussed thoroughly. The two chapters, "The building of the West" and "The discovery of gold and its consequences," were taken together as one large unit. Lastly, the various chapters on "The development of slavery and the consequent struggles for its suppression" (1783 to 1865) were also treated together under one heading.

The purpose of this part of the instruction was to place much emphasis upon the larger movements of our national development. It was a serious attempt to counteract the evil tendency of the usual textbooks, which (through lack of organization of material) tend to over-emphasize the importance of small details. A large unit in history is not a mere aggregation of smaller unrelated topics. It is the sum of many facts, tied together and unified by a central idea. The organizing and relating of the small points to the large unit assist in the interpretation of any history. It was my idea that if children could be taught to hunt out the bearings of individual facts upon large thoughts, and to measure the worth of the former by the influence they exert upon the latter, they would be led to right habits of study. In this way they would learn that isolated facts are of little worth.

3) *Reference Books.* — As the value of much of our future work must depend upon our ability to handle reference books

skilfully, I took occasion at this time to point out some of the devices that would aid in such study. Marginal references were to be used as a means of indicating the central idea of a page or paragraph, thus informing the reader at once what was discussed therein. Tables of contents, indexes and headings of chapters were all pointed out, as quick and easy means of indicating what the books contained and where information of a certain character could be found. If a reference book lacked one or more of the devices noted above, the pupils decided that it would be of much value to them to make their own "table of contents" or write their own "marginal references." I suggested that, if the book belonged to the pupil's own private collection, these headings might be written on the margin of the text opposite the paragraph; as an illustration I showed them some of my own books marked in that manner. If the book did not belong to the reader, such references should only be written in his note-book, and he would then have a series of valuable notes for future study. To give practice in note taking, certain paragraphs and pages from advanced textbooks in history were read to the pupils, and they were asked to write out the main point in one clear sentence. They were asked to keep constantly on the lookout for other possible means of assistance in learning how to study. Certain practical hints in that direction were given in connection with the regular lessons as we proceeded. I planned to impress these points by giving time enough during the recitation period to talk them over fully with the children, asking them to suggest ways of applying them to future study. The points were then written upon the blackboard and afterward copied by the pupils into their historical note-books, space being set aside for the addition of other suggestions.

4) *Use of Supplementary Readings.* — Through the readings in the text, and the discussions, a good foundation was laid in the comprehension of facts. But the children's knowledge of this period of history (1789-1865) was yet too meagre; their horizon had to be enlarged. This was accomplished by placing at their disposal a number of books treating of various phases of our subject. These books were selected by myself with especial reference to their adaptation to the class and to the fulness of their treatment of the events of the period. The reading from them was done during the regular recitation period, under my

strict supervision, along the three general lines laid down by their text, as noted above. In spite of constant urging, some pupils insisted upon beginning to read near the first of the book, and laboriously following every word, disregarding all teaching concerning the use of helps. Brief oral tests at the close of the study hour revealed the fact that the slow readers had not gotten much of value, while the rapid readers (generally) had much to tell of what they had gained during the period. Of course it is to be expected that the brightest pupils will generally read more rapidly than the others; but I am persuaded that even dull children can learn to read much more rapidly and more to the purpose than is their usual custom.

After persistent and strenuous effort on my part, a reasonable amount of real study was brought about. The pupils seemed not unwilling to comply with my request; in fact, they had been eager to begin the use of the new books. But they had found themselves almost helpless in the presence of so many interesting stories when they knew they were responsible for the selection of only a few bearing upon one definite end.

5) *Supplementary Helps.* — The author of a primary textbook in history finds certain limitations as to space, illustrations, full treatment of details, beyond which he dares not go if his book is to find ready sale and acceptance by the educational public. Hence, he often dismisses a whole field of interesting material with some such statement as this: "The history of those days is full of thrilling adventures, narrow escapes and deeds of heroism."[1] But teacher and pupils are not bound by any such considerations as the author is forced to recognize. Hence, I asked my pupils to suggest a variety of ways in which they could supplement and vivify the text, for I was convinced that the real vitalizing portion of historical study lay in an abundance of vivid mental pictures.

a) Each pupil kept an historical note-book; into this were copied outlines of work passed over, references to various books where special information could be found, and full notes and points on learning how to study. Pictures from various sources, illustrating the period of history we were studying, were cut out, classified, and pasted into this book. Magazine articles of an historical nature were cut out, then rebound by the children and

[1] McMaster, *Primary History*, p. 136.

preserved for future use; many advertising pictures were found to be illustrative of a wide field of American history. The *Four-Track News,* "an illustrated magazine of travel and education," publishes monthly many good pictures and sketches of old historic sites in America. The children found it a very helpful source in making their collection of pictures. In fact, they gathered more illustrative material than any teacher would find it wise to use. Extreme caution was necessary at this point, in order to avoid over-indulgence of the mere "collecting instinct." Historical pictures of the kind described have some value, especially in interesting children in their search for information. They like to select things that will make a considerable show of work. But activity of this kind is so easily mistaken by children for real study that, unless it is quietly restrained, the chief purpose of such illustration will be overlooked.

b) Manual construction was suggested as one means of supplementing the text. In answer to my question, "What can be done along that line that will represent real struggles in American life?" I got these suggestions: "We might make some of the things made by the pioneers; for instance, they were obliged to build their own houses; in some sections of the country these were log cabins, in other sections they were 'sod-houses' or 'dug-outs'; pioneer furniture was nearly all made with rude tools from rough materials found close by the new home; cooking utensils and all sorts of earthenware vessels were largely the product of home labor; flat-boats and rafts were common means of moving from one section of the country to another before the opening of canals and building of railroads; stockades and forts must be built, etc., etc." I regard this mode of expression as of real value in the construction of vivid mental pictures and therefore of much importance to children in learning how to study. To my regret the conditions of city life and the short period allotted for the completion of my work made it impracticable to suggest that the pupils construct most of these things outside of school hours and bring them to the class for purposes of illustration. Hence, we did little more in this line than to build a few forts upon the sand table and fight a few imaginary battles. However, I should certainly recommend that under ordinary conditions manual construction be made a prominent part of the actual study of history.

6) *Organization of Material.* — No doubt much that was read by the children in the various books was soon forgotten. I did not insist upon their attempting to remember the merely isolated events about which they read. But, as I learned through class discussions, strong impressions had been created; there seemed to be a definite feeling of several great forward movements going on within the nation. The collateral reading had simply placed the pupils in possession of a large amount of unorganized material which was to serve as the basis for further study. By a series of carefully planned questions, I endeavored to draw from the pupils a method of organizing and classifying the knowledge they had gained. With such a background as the supplementary reading had given, I had reason to believe that these pupils could do some real study upon such historical problems as are usually outlined for the eighth year's work.

7) *Method of Testing, and the Results.* — Near the close of my work I planned to give a series of written tests, consisting of three parts: first, a test upon the memory of related facts; second, a test to find how far the pupils were able to use what they knew concerning geography, civics, literature, as an aid in answering questions in history; third, a test calling for actual practice in seeking information upon certain topics by the use of various reference books. This plan has been only partially carried out, owing to the fact that I was obliged to conclude this paper before my tests were entirely completed; consequently my written results were quite meagre. Nevertheless, all results, both oral and written up to the present, are far more encouraging than otherwise.

Summary. — Thus far my description covers points as follows: The method of class discussion concerning the relative value of historical facts, followed by an attempt to develop some standard for determining their worth; the assignment of whole sections from the text that develop one large historical unit, these to be read rapidly with the definite idea of selecting the main thoughts; then the teaching of numerous devices for facilitating one's use of reference books, such as supplementary reading material along lines already marked out by text, historical notebooks, and manual construction. Afterwards followed a reference to a general class discussion in which the pupils, under my guidance, attempted to organize all topics studied under the three

lines of development already marked out. These three large topics were, "The struggle for commercial independence" (1789-1815); "The growth, development and expansion of our country" (1789- ——), and the great "Struggle over the slavery question." Finally came a three-fold method of testing results.

The chief points on teaching children how to study, as suggested by my experimentation, are summarized in the following statements:

Children generally have little appreciation of relative values; for them all topics are of about equal rank. Consequently, one of the first aims in learning how to study should be to acquire some of this ability. One method of giving assistance toward this end might be for the teacher and the class together to seek some simple statement which will serve as a standard for judging the worth of historical topics. But the teacher cannot properly guide pupils in this process unless he himself is familiar with a wide field of historical literature, and is keenly alive to the importance of his task.

When pupils seem to have some appreciation of the different values of historical facts, the teacher might direct the application of the standard by assigning a definite amount of reading to be begun at once; or, better yet, he might give such individual instruction that the pupil will feel the predominance of one topic over another.

Stated "study periods" once or twice a week are, in my opinion, of little practical value. If class discussion has brought pupils face to face with an important question, upon which they should have more definite knowledge, why not seek that information immediately? Otherwise, the keenest interest in the question and the desire for information may have passed before the next "study period." If we really believe in teaching children to study, we should seize upon every opportunity to increase and intensify their own interest in the matter. Assuming that a skilful teacher knows what is likely to happen under his guidance during a recitation period, and can place his hand quickly upon the desired reference books and other helps, I see no reason why *any* "recitation" may not profitably be turned into a study period at any opportune moment.

Children generally lack the ability to skim over a page or paragraph and decide at once whether it contains the information

for which they seek. But such power is of immense importance to every good student. Whether or not we believe in teaching young children to do this, it must be admitted that it becomes a matter of necessity to the advanced student; and the earlier in life the habit is formed, the greater the saving of time and energy. The chief objection to skimming is that it may lead to superficiality in all study. But such a result is by no means necessary. Children do exercise their power of selection in a hundred ways daily; why should they not learn to do so in a field that promises large returns of practical importance? "Some books are to be tasted; others to be swallowed, and some few to be chewed and digested." [1] Skimming through books and skipping about here and there is not to constitute the chief part of pupils' reading; it is simply one means of finding out what a book contains without reading every word. When something of importance for our study was found in our supplementary reading, I insisted upon careful and thoughtful work, testing the quality of the reading by many questions. If I was not satisfied with the result, I insisted that the paragraph or page be read several times. Several of my pupils learned to do this work admirably and, as a result, their recitation work was highly satisfactory.

The use of many books, by pupils of this age, in search of definite information upon two or three large topics, roughly mapped out by a meagre text, is a test that taxes their ingenuity to the utmost. For this reason I anticipate some criticism from those who are seriously alarmed over the "murder of modern innocents." Yet the keenest scrutiny of my several observers and critics failed to reveal any strain or weariness from the added burden. Healthy and vigorous children really enjoy tasks which tax their minds to the full capacity, especially if the work be interesting and inspiring. There is mental stimuluation and a certain exhilaration in feeling one's growth in power.

My development of a plan of organization of subject matter under a few large historical units was a conscious attempt to influence the children to follow, or imitate this process in their future work along similar lines. "If it is important that the teacher should have a plan while he teaches," says Professor Bender, "it is equally necessary that the pupil should have the way he is to follow in his study hour clearly marked out for him." [2]

[1] Bacon

[2] Bender, *The Teacher at Work*, p. 59.

Professor Boyer adequately describes my purpose in advancing imitation as one means of learning how to study. "The time should come when a learner may be safely put in charge of himself; when he may become at least one of his own teachers, and that a most effective one. In order that this point in the pupil's development may be reached, he must be required to study as he should study until it becomes his established habit, and until his interests, as well as his power, are such as to warrant his emancipation from an instructor's authoritative tutelage." In other words, "The method of instruction should tend to free the learner from the necessity of supervision." [1]

As to a large number of books — the use of several books results in a much nearer approach to the truth of historical events than can be gained from the use of one book. The reference books used differed considerably in their interpretation and statements concerning certain facts in history. These differing views were set forth during the recitation hour. Pupils were surprised to find that the statements in books were not always true. We talked over the rival claims of North and South concerning the rights of slave owners. The pupils were here impressed with the necessity of looking fairly at both sides of the question without prejudice or bitterness. They decided that the right was not entirely with either section, and that more tolerance and fair-mindedness in public discussion during that stormy struggle might have averted a terrible war. One pupil asked why the Government did not purchase the slaves and set them free. Another suggested that such a plan was proposed, but neither side would agree to it. The reason was clear.

For evident reasons, I led the class discussion into the field of journalism, with the purpose of arousing an inquiring mind concerning the truth of everything printed in the newspapers and magazines. Numerous illustrations, close at hand, proved the utter impossibility of getting at the real truth of current events by accepting unquestioned the statements of any one publication.

I consider open-minded class discussion of great questions to be of immense importance in releasing our educational system from its present state of thraldom to dogmatic instruction and ultra-patriotic bombast. The cultivation of an open, tolerant mind is one of the largest aims in the formation of right habits

[1] Boyer, *Principles and Methods of Teaching*, p. 74.

of study. If our schools are not to train up a class of bigots, children studying history must learn to seek more information than is contained in one text.

Children Can Study. — This statement, though simple enough upon its face, is not fully accepted in educational practice. Authors of primary textbooks in history and of books of history stories, preface their works with statements that practically admit the truth of my thesis. Yet many of these same authors at once proceed to fill the pages of their books with "a mass of anecdotes, — often of very slight importance, and more often based upon very insecure foundations."[1] This is disappointing, especially when pupils have become convinced that they can do real studying. One pupil of the above-named class expressed the opinion that certain textbook material was "mere baby work"; others said there was "not enough of it to get interested in." I am not sure but that the pupils were right in their judgment of the merits of the books mentioned. At any rate, I am sure that in this, as well as in other matters of a similar nature, they showed good reasons for their judgments; and that they were aggressive to the extent of condemning an author's statement if it did not tally with their own experience. I do not pretend to say how far such criticism on the part of young children should go; but I do maintain that criticism of this kind, based upon reason, is evidence of ability to do good thinking within reasonable limits. Children protest against being fed upon "milk" all the time, when their "intellectual appetites" really crave some "meat."

While, as Professor Bourne says, it is probably true that "a great body of knowledge cannot be accumulated" at this stage of the work, I am convinced that it is a serious mistake for "the teacher to be content," as he says, "with impressions . . . with the acquisition of an outline or framework into which later knowledge may be fitted."[2] That for which these children seemed most eager was not outlines — but real content, interesting facts or details, and vitalizing discussions upon some of the larger issues of our historical development. I found even the dullest pupil eager to recite when he knew he possessed some definite information upon the topic under consideration. There seemed to be a certain exhilaration in feeling his growth in ability to make a

[1] Preface to Channing's *Short History of the United States.*
[2] Bourne, *Teaching of History and Civics,* p. 356.

good recitation. "A child's reasoning may be imperfect and his results crude; but one cannot begin too early to expect some thought and comparison. Children form judgments about people and bring to bear upon the process their own standards of human character." [1] Because of many questions raised and some answers given in the development of this work, I am convinced that children of this age can do some really sound studying or thinking.

The Nature of Children's Study. — I believe that children in the sixth grade should be given some work of a really serious nature. I would not advocate placing in their hands an advanced textbook, but would keep the primary text as a basis for work. But too much time should not be given to the study of any one book. Much of the time now spent in reading simple, entertaining history stories could be better replaced with some profitable searching among various historical works for information upon topics of vital importance to the development of our national life. A method of study on the part of children is as essential as a method of teaching on the part of the teacher. There is abundant material upon the teaching phase of the question; but there is little or no information of value in regard to the method of study. Nevertheless, it is reasonably safe to assert that one large element in study will be found in the proper handling of collateral material. "This impotence of the pupil to use books by himself must be overcome if he is ever to become a scholar, and it can be done in only one way — first by preparing him to use books, and then setting him to using them himself." [2]

Finally, I am convinced as a result of this experimentation that "there can be a discussion of causes by pupils and teacher, a weighing of probabilities . . . and an appeal to the children's previous experience and reading in such a way as to make impossible the mere memorizing of a book." [3] Along the same line Sir Oliver Lodge says: "Let the boy hunt up his facts when and where he can; let this be a branch of his education. It is often far more important that we know where and how to look for facts than that we should go about with them stored in our memory." [4]

[1] Channing and Hart, *Guide to American History*, p. 205.
[2] Hinsdale, *Art of Study*, p. 69.
[3] McMurry, *Special Method in History*, p. 51.
[4] Sir Oliver Lodge, in *Contemporary Review*, February, 1904.

Such study should be required of children as will lead them to exercise their own native energy, and enable them to use to best advantage the little knowledge that they possess. "The feeling of mastery and growing power is what more than anything else conduces to interest and stimulus; . . . it is the consciousness that effort is remunerative and that one is really getting on, that encourages to further effort." The same author further says, "Children can be brought to take an enthusiastic interest in quite advanced things if they are under good teachers from the first, if their early enthusiasm is never blighted, and if their progress is steady without so many interruptions and retrogressions." [1]

Method of Testing Results. — If the development of power of thought and facility in the use of books is of more importance than mere memorizing of a textbook, then there must be a radical change in the method of testing for results obtained in the teaching of history. The general practice of the present day is to test almost entirely for memory results alone. I do not minimize the importance of memorizing in history, provided that what is committed is worth the effort, and is a defininte contribution to the child's knowledge. Yet I am convinced that at present the memory side of this work is unduly emphasized. It seems to be almost the only means of testing for results.

It is the opinion of several prominent educators that a proper test should be of a much broader nature. It should not only test for a memory of related facts; it should also attempt to ascertain how far the pupils are able to use and apply what they have learned. Furthermore, it should test their ability to use various books of reference in connection with their text, and to "sense main issues," and then state them in brief and compact sentences. Such a method of testing will reveal something of a pupil's ability to do real studying and thereby settle the whole question of promotion.

Sir Oliver Lodge's recent remarks along this line are so pertinent that I cannot refrain from quoting him at some length. "The use of the examination paper has not been exhausted when boys have answered their moderate percentage of questions, without aid out of their own poor heads. So far has extended its testing use; now begins its educative use. Assumed that the

[1] Sir Oliver Lodge, in *Contemporary Review*, February, 1904, p. 161.

questions are worthy of study, encourage the boy to take his questions to the library, home, laboratory, anywhere appropriate, and re-answer them with all the time, appliances, books, helps, etc., at his command without actual copying. It is not conducive to good morals to leave questions half or a quarter answered and never think of them again. If they are worth asking they are worth answering, and the initial effort to answer them unaided has probably made the mind receptive of more information on the subject, an attittude which should be greedily utilized. . . . Some of us cannot help having a mass of facts stored in our memory, but they are not stored there laboriously; they stay there because there are niches ready for them; because they fit each into its place and form a fairly complete system." [1]

In conclusion, I recur to a previous statement and repeat that the brief period of experimentation has not brought about all the desirable results that this paper points out as possible by such a method of treatment of historical material. The old story that " it takes only a few weeks to grow a squash but many years to grow a sturdy oak " is especially applicable at this point.

" It is one thing to communicate to a pupil the results of thinking and quite another thing to train him to think." [2]

I believe that no teaching should be called " the best teaching " which does not properly emphasize the formation of right habits of study. We touch here, I think, upon one of the chief reasons why so large a percentage of high school graduates are so lacking in efficiency, in power to do something worth while, when they are suddenly transferred from a round of daily recitations to the active duties of the actual industrial world. " Efficiency may be defined generally as the ratio of the out- to the input; the useful work obtained divided by the energy supplied." [3] If training in this direction is not begun quite early in the school, and continued in a vigorous manner throughout the entire educational course, I see no prospect that the future graduates of these institutions will surpass in power of thought and efficiency the graduates of the present generation.

[1] Sir Oliver Lodge, " School Reform," in *Contemporary Review*, February, 1904.

[2] Morgan, *Studies in Pedagogy*, p. 33.

[3] Sir Oliver Lodge, " School Reform."

PRACTICAL ACTIVITIES IN CONNECTION WITH THE STUDY OF PRIMITIVE LIFE, IN GRADE III, SPEYER SCHOOL — THEIR NATURE AND VALUE

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This paper is little more than a catalogue of the handwork actually accomplished in grade III from the beginning of September, 1903, to the end of January, 1904. The class is composed mainly of children of the more intelligent class of workmen. About half of them had been in this school for some time and were accustomed to handwork in the preceding grades. The others had no experience of the kind, but took up the work easily. One and three-quarter hours per day, during three days of the week, were devoted to the study of primitive life. The usual division of this time was three-quarters of an hour for the story and the discussion of plans of work, and one hour, later in the day, for constructive or experimental work. About three-fourths of the handwork of the year grew out of the study of primitive life. The remainder consisted of work to meet various present needs of the child, such as Christmas presents, valentines, and the like.

For the first two weeks of school, as a review for those pupils who had been in the second grade and as advanced material for the new ones, the *Story of Ab,* by Stanley Waterloo, was studied. A longer time was spent studying the present conditions of home life and occupations of the Thompson River Indians of Canada. These Indians were chosen as a type because their habits of life are extensively shown in the Museum of Natural History. The Algonquins and Iroquois Indians were studied briefly through comparison with this type. The ancient Cliff Dwellers furnished a topic for two weeks, while the study of the Pueblos lasted three weeks. Following is an outline of the handwork attempted in these connections, classified according to its bearing upon the problems of food, clothing, and shelter.

Food; Implements. — Through the study of Ab the class were already familiar with the use of part of a branch as a weapon of defense and offense, and in the study of the Thompson Indians they found a slight progress in the making of weapons. Their own efforts resulted in an implement

composed of Ab's club with sharp stones tied to it; it was thus made heavier, and a stronger blow was possible. In order to reach farther a longer branch was used. When made of a smaller branch the weapon was so lightened that it could be shot from a bow. With rough pieces of flint or granite, arrowheads of slate were pointed and notched; and these were bound to the shaft, twine being used in place of rawhide. Feathers were bound to the arrow so that it would not swerve in its flight. When bows were planned, several woods were tested for strength and pliability. Some specimens were steamed and straightened. Many ingenious makeshifts, such as umbrella ribs, whalebone, and reed, were employed for bows. Good points in bows, and means of securing these, were discussed, much as sketched in a recent book[1] on practical activities. The respective lengths of bows and arrows opened up the topic of measurement and the selection of natural units.

While the class were chipping arrowheads, there were small boards on the desks to protect the latter from scratches. The difficulty of conveniently storing the boards brought out the suggestion of hanging them on the coat hooks. There was nothing, however, to hang them by. A child thoughtlessly began to bore with the pointed stone he had just been using. A small indentation was made. Presently there was a hole through the board. Then the greatest excitement prevailed. Every one bored. Some one worked rapidly and noticed the heat generated. Ab had made fire by rubbing wood together — why not try to make some, too? Thus the hand-drill came, followed by the bow-drill, and later the fly-drill. While actual flame was not obtained, the wood was slightly charred several times.

Baskets. — The supposed hunters had brought in fresh game secured with these newly made bows and arrows. The squaws could make a fire. The class had boiled water by dropping hot stones into it. The question now arose as to what could be used as a pot for cooking the meat. Uncle Remus' little bird sang the same song to the children that he had sung long years ago to the little rabbits to help them out of a dilemma:

" Sifter hold water same as the tray,
If you fill it with moss and daub it with clay."

There was no sieve, but they could make baskets and line them

[1] Miss Dopp, *The Place of Industries in Elementary School.*

with clay; these would then hold water and the meat could be cooked. While making the baskets, several members of the class naturally fell into the over-and-over stitch so characteristic of Indian basketry.

Pottery. — During the building of the adobe house the subject of pottery for cooking purposes came up. The class produced some very creditable bowls and ollas both by moulding the clay with their hands and by coiling it and then smoothing the sides. Some of the best pieces were fired at the College; others were fired with some success by children in the cooking stove at home. In firing the reed baskets lined with clay, the reed should have been burned away, leaving its impress as a design on the vessel. This experiment was not successful, however, because the clay cracked so badly in drying.

Making of Bread. — Now that the meat was cooked, the bread must be considered. The corn was ground, some at home and some at school. Some pupils who come from the less thickly settled Jersey side of the river had seen Italian laborers cook bread on heated stones, and they themselves had cooked potatoes in holes in the ground. It was too cold for an excursion, so the sand table was used to illustrate the process of primitive baking. The hole was dug in the sand, a mock fire was kindled, and sticks piled on for fuel. While the stones were supposed to be heating, some cracked corn was mixed with a little water. When the stones were very hot the ashes were swept away and the bread was laid on and covered, first with corn husks for cleanliness and then with hot ashes to add heat. Lastly, to confine the heat, some earth was piled over all. In about half an hour the bread was taken up and set aside to cool. Paper fish were cooked in the same way. The process with real fire, earth, stones, and food will be undertaken in the spring. Related work in the regular cooking room included experiments with parching corn, making a cake of meal and water, stewing cranberries, and boiling rice and potatoes.

Clothing. — Most of the work here was upon cloth used as a substitute for skins, but there was some actual experiment with real skins. Those of rabbits were the only ones available in the green state, and these were stretched, dried, oiled, and used in making the head-dresses for the braves. The processes of tanning were discussed in this connection. Other head-dresses were made of bright-colored cloth and decorated with beads in design.

All were adorned more or less profusely with feathers, and were even worn at the Washington's birthday celebration, held in the gymnasium. Yellow canton flannel represented buckskin in a shirt, which was trimmed about the neck and at the seams with a fringe of the same material. Small copies of this shirt were made for the clay men of the Indian village on the sand table. Moccasins, also beaded, were made from this same cloth. The garments of the Thompson Indians were represented by blankets woven of raffia in place of the cedar fibre used by them. Other blankets were woven of wool. Weaving has not been developed beyond the use of the heddle and the introduction of design. Further development is planned for later in the year.

Shelter. — In the study of primitive homes the children were led to realize that the various forms of shelter are direct results of certain conditions of environment. Types of shelter were reproduced and compared. The first form after the cave of Ab was the cave-like lodge of the Thompson Indians. The material for this structure was a large bundle of twigs, some grass, and earth. To support the framework, four twigs, each with a crotch, were set upright, forming a square, and the four corners were then connected by sticks resting in the crotches. Upon this frame other twigs were arranged, making a conical house with an opening at the top to serve as a door. The completed framework was then covered with grass and earth. The ladder which afforded access to this half underground lodge was simply a stick with notches cut along the surface. The furniture consisted of blankets, skins, pillows, baskets, boxes, spoons, boiling stones, and sticks for lifting the stones. The summer lodges were made of several raffia mats, arranged in tent-fashion over poles. The village was situated near a stream for convenience during the salmon fishing season. A dock to fish from was erected in the stream, which ran along the edge of the sand table. Some women were cooking in baskets, others were tanning a hide. Men (modeled in clay) in a birch canoe, could be seen approaching the shore, where other men awaited them. Two deer, in a forest of fir, seemed not at all alarmed by their proximity to man. The plan of the Iroquois Long House was drawn to a scale of ½ inch to the foot. The house was built of blocks on a scale of 2 inches to the foot. The Algonquin wigwam was compared with the type, but was not reproduced.

House of Cliff Dwellers. — In order to bring before the children such geographic conditions as existed in the country of the Cliff Dwellers, attention was called to certain formations in the vicinity of the school which illustrated in a small way the canyon and mesa of our southwest. A suitable place high on the face of the cliff was selected as the site for the peaceful Cliff Dwellers' home. It was not built there, but on a board in the schoolroom. Red sandstone and clay formed the walls; twigs, grass, and clay the roof.

Adobe House. — This served as preparation for the study of the home of the Pueblo Indians, the direct descendants of the now extinct Cliff Dwellers. Sun-dried bricks of clay were made and a house was erected along the lines of a typical adobe building. The oven, the grinding stones, blankets, blanket poles, benches, baskets, bowls, and ollas were supplied as equipment.

These lines of handwork presented a sufficient variety to maintain a good degree of interest. The working out of sequences was not hurried, and conclusions were not forced. Ample time was given the children to bring their best thought into play.

The study of primitive life by children of about this age needs, of course, no theories of recapitulation to justify it. It is sufficient, in the first place, to say that it presents the fundamental needs and problems of life in their simplest and most vivid form, and that the study of these needs and the simple, primitive methods of meeting them is apparently the best preparation for later study of modern needs and the very complex industrial and social adjustment for meeting them. If they are to get any concrete idea of the facts presented, much of the handwork above outlined would need to be performed, if not by the children themselves, at least by some one within their view. Such work, therefore, seems essential to the teaching of primitive life, considered merely as a sort of history study. There has been ample evidence of the value of the actual stone chipping, drilling, and weaving, in vivifying the conditions under which these races lived, and the nature of the problems which they faced. Secondly, the work has not been mere reproduction by the children of suggested operations, but rather a constant search on their own part for detailed means to meet certain constructive ends, involving a somewhat general training of resourcefulness in handling quite a variety of

materials. Thirdly, the training has come in connection with the use of just those materials most available for the out-of-school play-construction of children, so that it could be expected both to stimulate home work of a valuable sort and to develop the habit of meeting new needs by means of novel uses of commonplace materials.

It is further to be noted that neither teacher nor school was at any expense in providing the materials for the greater part of this work. While this, as has been shown, was not the reason for the general plan of work, it is still an important consideration.

THE USE OF GAMES IN SECOND GRADE NUMBER WORK

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In accordance with our curriculum there is no systematic teaching of number in the first grade, but the children are taught incidentally to count and to use other forms of measurement. It is left to the second grade to begin the more formal work.

Since children who enter the second grade already know how to play many games involving number, it was thought that the interest in these games might be increased and that they might be used in the number teaching. There is an opportunity to teach many number combinations in such common games as dominoes, ring toss and bean bags, while keeping the score is always an added interest. Many children play games without thinking of the number side; they enjoy simply the physical exercise or the skill attained. But the teacher can make use of this pleasure to introduce the number work, and can transfer a portion of the interest to the keeping of the score. This has been tried during the past year, games having been made a part of the regular number work. The games have included dominoes, ring toss, games with bean bags and a marble game suggested by Mr. Jackson of Teachers College. The addition game published by the Cincinnati Game Company has been used by a group of more advanced children.

Before introducing games from the standpoint of the number work to be presented through them, it seemed advisable that the children should have sufficient work with objects to know combinations under ten and that they should be able to count by

twos, fives, and tens. This seemed necessary because keeping the score in games is more abstract than handling objects. In dominoes the actual spots may be seen and counted, if necessary, but in most games there is nothing so tangible.

Dominoes was the first game introduced in a second grade class of twenty children. The first step was simply to recognize the groups and to pick out double numbers; later, the groups were matched. The child who in this way first disposed of his dominoes was called the winner, but no score was kept until later. The next step was to add the groups at the two ends, allowing only five or multiplies of five to count in the score. But in order to determine whether he had made anything, each player found it necessary to add whatever numbers there were. As might be supposed, many combinations were taught in this way and it was by drawing attention to them, without stopping the game, that the number work was accomplished. The children soon found that in order to win, they must remember the combinations.

The game was taught to groups of eight, around tables, and each child kept close watch of the gains of the others, the ambition being very keen to be the first to score, or the first to tell of some fortunate play which might be made. Several children early showed the ability to choose a domino with a number which added to that at the other end, allowed them to score. In this way much subtraction by addition was taught; this method is the one used in the Speyer School. For a time one especially capable boy was allowed to watch sharply the dominoes of all his neighbors, and to point out to them when they had two chances to match a number, and to say which was the better domino to play, and why. The score was first kept on the blackboard; later each child kept his own on paper.

When the children were independent enough to play in groups of two, they were told that the player who first disposed of his dominoes gained the spots on those of his opponent. This led to more complicated number work, such as adding the spots quickly, writing the figures in their proper order and finally finding the sum. A score card was then kept by each child and the column of figures was footed up at the end of the game, or the next morning, if time pressed. Several scores were copied on the board and added as class work.

Ring toss has been used to teach addition and, later, multi-

plication. There were four rings, each having at first a value of five and then of ten. Later two rings counted fifteen each and two five each. Fifteen and fifteen seemed an easy combination to most of the class. The values given to the hoops were changed from time to time as new combinations were desired. When each counted three, for example, the children practiced counting by threes. Having learned that four times three are twelve, they were given that combination in many ways, both in problems and in other games.

But the self-control which enabled the stronger children to think more rapidly seemed to give them physical control or skill also. So it was found that the very ones who needed the number work most, got it least. They had so little skill in throwing a hoop that they seldom scored.

Games with bean bags are probably the easiest to use in the ordinary school room. This class used a board with three large holes. The bean bags they made in the sewing hour. They played "catch" with the bags, allowing for each time one was caught, a count of a certain amount. But the usual game was throwing the bags through the holes. This required so little skill that every one was able to score frequently, and the play was rapid enough to allow poor players extra chances. Sometimes a value was fixed for each hole, this being indicated with chalk. But usually the value was placed on the bags, three of one color counting ten each, and two of another color five each. Each child threw his five bags and mentally counted what he had made. He kept his score on a card. All knew, of course, that if they threw all the bags successfully, forty was made. Several children noted, without assistance, which bags did *not* go through — the two fives, for example — and then observed that they must have made thirty, since thirty and the ten they did not make were forty. Also attention was called to the combinations by which they might make thirty, fifteen or forty; for example, $10+5$, 3×10 or 4×10. These forms were written on the board, but no particular attention was given to them at first.

A certain number of points was sometimes decided on as the goal of the game — fifty, for example — and at the close of the recitation period each was asked how much he needed to go out. Sometimes the game was continued the next day, and the score cards of the first day were added to on the second.

This game has been used for addition, multiplication and some subtraction.

In the marble game the subtraction process was more difficult. A box with an arch cut in one side was placed on the floor, bottom up. Marbles were rolled toward the arch; those that went inside the box counted three each, those that went to the left reduced the score one each, those that went to the right took off two each. Much interest was shown by the stronger children. Some were able to keep the gains and losses for several turns in separate columns and then, after adding each column, to find the difference. This was difficult for the class as a whole, but before the year is over they should be able to do it easily.

While a game was being learned the whole period was frequently given to it, but problems in counting were so continually arising that much number work was provided. Later, about half of the period three times a week was spent in games — ring toss, bean bags, etc.; and once a week a whole period (25 to 30 minutes) was given to dominoes, in which both the playing of the game and the score keeping involved number work.

One of the most valuable helps that have been gained through these games is a greater incentive for some of the more formal work of arithmetic. When the teacher is playing with a small group, she can see that they keep their scores mentally; but when several groups are playing, she cannot oversee more mental work than that of the frequent smaller additions. Thus there arises the necessity of learning to write numbers; likewise the need of reading figures and of placing them in their correct positions in columns. Then this led to other work, such as making tens with sticks on the desks, observing tens and units, and writing the figures which they represented. This seemed quite as interesting as any game. "Carrying," which was necessary to keep the score, was taught in this way.

But while games are found to be a helpful means of presenting number facts and of making them necessary to the children, thereby rendering the arithmetic period one of the most interesting in the day, they do not provide for *rapid drills*. Other means had to be devised to reduce the number facts, learned in the games, to a mechanical kind of knowledge.

It is true, also, that this work is rather noisy in the schoolroom. The teacher must expect that, and she should try to have

the noise only of the pleasant kind that comes from a very desirable enthusiasm. In playing dominoes, for example, now that the game is learned, twenty children play at the desks at one time, and make some noise, of course. But every one is busy with his game and the noise is seldom disturbing, especially as felt covers are used for the desks.

One of the advantages of such recitations is the opportunity given to children to help one another. This help is cheerfully given and gladly received. It is a kind of work, too, that may be safely entrusted to the children.

There are possibly many games that might well be used for number teaching. The ones that have been tried are only a few of the very common ones. Parcheesi and lotto seem desirable for this grade, but they have not yet been tried.

The following are examples of such arithmetical problems as have been suggested by the games. Some of them were asked the class by the children themselves on occasions when they pretended to be playing number games.

1. Dominoes cost 10 cents a box. What have all our dominoes cost?

2. We have 14 children to play this morning. How many boxes do they need if they play in groups of two?

3. The two ends in a domino game are 6 and 5. Is any one able to score and why?

4. In a game of bean bags the holes count 8, 4, 3. Paul throws a bag through each hole. What is his score?

As was previously stated, these games have been undertaken with a class of only twenty children. How successfully they could be introduced into much larger classes is a question. Those games that take much floor space would be scarcely manageable, and it has not been found satisfactory to give seat work to a part of the class while bean bags or ring toss was being played by the others, since all were too much interested in the games. With dominoes or addition cards, however, such a division of the class might well be made, and games of that kind might prove feasible in any schoolroom.

INTERRELATIONS OF SCHOOL AND NEIGHBORHOOD WORK IN THE SPEYER SCHOOL

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Speyer School represents probably the first formal combination of school and settlement under one management and in one building, its purpose being to prepare teachers for rendering a broader type of social service through their schools and to demonstrate the mutual advantages to both school and settlement which are believed obtainable through their close coöperation. The experiment has been in operation for but little more than a year and the lines of work which have been tried will necessarily appear somewhat disconnected. But perhaps a brief discussion of the advantages expected from such a union may make clearer the bearing and value of the work so far attempted.

It is evident that the social settlement and the school — at least the public school of the better type — have been growing toward each other both in general aim and in method of work. The settlement began with the attempt to serve the community through friendly association and sympathetic neighborship, but it has developed more and more into an institution offering its neighborhood a long list of markedly educational opportunities. The public school was, not long ago, responsible for just one thing — drilling small children in the three Rs, but it is rapidly coming to render much more general community service, such as regular evening classes and lectures, and even entertainments. Considering both of them, then, as institutions aiming at the general social improvement of their neighborhood, it takes only a glance at their respective advantages and limitations to show in what a remarkable way they might supplement each other.

The settlement is expensive, especially if it is in a crowded locality, because it requires for its evening work space which is useless during a large part of the day. Its main assembly room is often utilized for a kindergarten in the forenoon, but its gymnasium is likely to be vacant at least until after school hours. Further, it has to exercise great caution, especially at first, to avoid having its efforts looked upon as forms of charity or impudence. Having no formal place in the neighborhood, its con-

stituency is considerably a matter of accident, and it is certain for some time at least to be a comparatively scattered one.

The school, on the other hand, especially if in a fairly modern building, has a plant ready at hand which can be utilized with comparative economy for quite a variety of afternoon and evening work, and there is a minimum of social prejudice to overcome, as the neighborhood realizes its ownership of the building and its right to make use of it; and practically every family has the additional link of children attending the regular sessions. This latter point of contact, though it ordinarily remains a purely formal one, is in almost every case capable of expansion into an intimately personal one, as has been proved by the individual efforts of many a teacher; and this could probably be accomplished as well by some other person, provided he were clearly recognized as a member of the school force.

The school's weakness is that this formal contact with the neighborhood is so seldom put to use and made personal. Principals and teachers, especially of those schools where a neighborhood institution is most needed, ordinarily live at a distance. If they are to introduce any line of night school or evening work, they have little direct knowledge to guide them in its adaptation to local needs, and must guess at these, after consideration of the appearance and behavior of the children at school, supplementing this by the somewhat pathological knowledge gained through acquaintance with certain parents who visit the school periodically by request.

It is the exceptional teacher who has knowledge of the interests, ideals and problems of the locality, gained from actual participation in the neighborhood life. The lack of this personal touch limits the social value of the school in two ways. It means first that there can be little appeal to the community on the social side, and that whatever is offered either day or night must be of a formal and institutional type, only very crudely adapted to the real needs of the constituency. In the second place, it means that there can be little or no attempt to utilize the social forces resident in the locality and therefore no educating of the community in the direction of self improvement and organization to meet its own needs. Whatever is done, being both planned and carried out by outsiders, will be properly looked upon as a purely external contribution. Since it takes place in a public building,

people will make use of it without question if it happens to meet a conscious need; but they will feel little responsibility for the further development of the work.

Now the present importance of the settlement is largely due to its unique success in just these directions. Settlement residents develop their somewhat accidentally formed social connections as far as possible, gaining a very close acquaintance with whole families of their neighbors, including both the most and the least efficient and successful. They get the confidence and the confidences of their circle, and come in time to know in a peculiarly intimate and personal way the weaknesses and needs of the community, so that the judgment of a settlement regarding any plan or policy of neighborhood improvement would probably be much more reliable than that of the local schools. Further, the success of settlements in getting localities to work actively for their own development is too well known to require more than mention. It is the general settlement policy that the work shall be conducted by the people of the neighorhood, the residents — at first apparently, and in time actually — taking the position of fellow members, rather than directors, in the various organizations.

It would appear, then, that the proper combining of public school and settlement would mean:

(1) A considerable economy in neighborhood service.

(2) A settlement constituency very much increased, and including practically every family in the district.

(3) A much better adjustment of the more formal educational work of the night and even of the day school to actual needs, through the suggestions of those sustaining the settlement type of relation to the neighborhood.

This combination, as represented by Speyer School, has not been able to realize fully upon these advantages of coöperation. It does so, however, on the economic side, for the school equipment, particularly that of the gymnasium, the kindergarten, woodworking and cooking departments, and the library, fits the needs of settlement quite as well as school, the only additional cost for the former use being that of extra janitor service and the heating and lighting at night. And it should be noted here that the number of people now using the building outside of school hours is nearly three times the number of those attending the regular school sessions.

Regarding the second point, it is to be said that the day school fails to render the settlement any such constituency, owing to the fact that it is not a public school. So far from giving touch with every family, its 160 families are scattered about a neighborhood including some 10,000 families, and are far from homogeneous in type. The question of limiting the settlement work to these 160 families was of course considered, but such a plan seemed to promise only very slow growth on the settlement side. Also, it appeared doubtful how far the bond of such a school could avail for the uniting of families otherwise so scattered, except for special purposes directly connected with the education of their children in attendance at the school. So the settlement work has so far had an independent development, with the view of bringing Teachers College students into touch with good examples of organized neighborhood work, while the school has been trying somewhat independently to reach its own families in such ways as promised benefit to the school children and the school work.

The settlement work has developed rapidly and the neighborhood has shown itself appreciative. Some 500 persons attend the various clubs and classes during the week, and more than half of these come two or three times a week. This estimate does not include the attendance of the adult and juvenile libraries, with a membership of 1200, some 400 or 500 books being out at all times. The work is conducted by five residents, and about seventy non-resident workers, two of the former giving their whole time. It is similar to that in any of the more efficient settlements, with perhaps rather more emphasis on the educational features of the different organizations. For instance, the clubs of boys under 18 years of age have two meetings weekly instead of one, this extra evening being divided between systematic work in the gymnasium and in the woodworking shop. Two of the girls' clubs have sewing or cooking in the same way. One of the young men's clubs edits the *Speyer News,* a small four-page weekly dealing with the affairs and interests of the house; another club recently gave a very creditable presentation of scenes from *Julius Cæsar* as a part of the entertainment at the regular Wednesday social evening. The kindergarten room, with a good supply of table and floor games, is open daily from 3 to 5 o'clock and has an average attendance of fifty children under 12 years of age. This

and the Saturday afternoon dancing class are the main lines of settlement work which touch the children of the day school, most of these being too young to belong to any of the clubs.

There are three parents' organizations, somewhat distinct from the other settlement work, which hold monthly meetings. There is a home nursing class with a regular attendance of fifteen or twenty. A group of some twenty German mothers meet to read together in their native language, thus keeping alive an interest which may prevent German from falling entirely out of use in their homes. The Mothers' Club antedates the present building by three years. It has an average attendance of sixty or eighty, and now means much to its members as a purely social organization, apart from the connection with the school and the interest in the school affairs of their own children.

Aside from their value to the neighborhood itself, these activities contribute materially toward the special ends of Teachers College, by acquainting its students with settlement work, and giving actual experience to some fifty of them, who assist as non-resident workers. It would seem feasible for the College at some future time to offer a regular course dealing with such work, and, in the meantime, for some present course in school method or administration to study critically what is being done here.

The parents' clubs above referred to might quite as well have been mentioned in connection with a somewhat different type of social work, which aims to contribute to the improvement of the school itself. Of course all the lines of afternoon and evening work mentioned are a most direct contribution to the school, if we are thinking of the latter as an institution seeking to serve, so far as possible, all ages and all interests within its locality; but these lines do not affect the school in the narrower sense, having little connection with the children in the day classes, and including comparatively few members of their families. This will doubtless be changed somewhat as the school comes to include the seventh and eighth grades. But since few children now in attendance are old enough for membership in the clubs, the principal way in which the settlement can assist the school seems to be in the better adaptation of the school work to local needs and its larger application in the life out of school. That, indeed, is a great problem.

Many schools recognize in theory the importance of having that which the child learns at school function immediately in his daily life, but practically they do not accomplish such application to any satisfactory degree. Two important factors in this partial failure are: first, the school lacks knowledge of local conditions and therefore teaches subject matter which cannot function; second, it fails to secure requisite coöperation from parents. One would expect that an intimate acquaintance with the homes and parents would help much in both these respects. And the acquaintance so far established has justified this expectation.

Immediate application is most natural, as well as easiest to attain in connection with the more practical lines of work, such as household science, nature study, and manual training. Some work recently done in connection with the sixth grade class in cookery will illustrate one method of procedure. As a beginning, the general question of the efficacy of such work was taken up directly with the parents themselves. About half of the mothers were visited during school hours, and all were glad to discuss the subject. It appeared that one girl — and only one — had reproduced nearly every dish at home. Most of the others had experimented a little once or twice, but had made no pretension of doing it regularly. All the mothers agreed that it would be a good thing to encourage the home application, several suggesting of their own accord the great difference between cooking one dish and preparing a meal, and the one-sidedness of experience derived only in the former way. They said that the children were not unwilling to apply their knowledge at home, and they did not criticise the subject matter of the cooking course in any general way; indeed, they considered the different dishes well selected and "plain." In most cases the real obstacle to such home work by the girls seemed to be the fact that it was more "bother" than doing it oneself, and this the mothers readily admitted was not a valid one. A further difficulty, however, was the small number of meals which could be conveniently turned over to the children. Breakfast came too early, dinner was too serious a problem, and the noon recess was too short to allow of their getting the lunch.

It was then arranged that the girls of the class should prepare and serve an evening luncheon at the Speyer building for the parents. While the main purpose was to furnish an opportunity for further discussion of school and home cookery, it was also

wished to give the parents opportunity to see for themselves something of the way in which the instruction was undertaken, and to present a good object lesson in the way of simple and inexpensive entertainment. So the custard was frozen, not in a freezer, but in tin cans, and the various dishes at hand, together with Japanese napkins, were used in novel ways to make an attractive table. The preparation of the luncheon proved of absorbing interest to every girl, and the attendance was good, including parents of all the girls except two.

While the girls were washing the dishes there was a brief discussion of this particular lesson with the mothers. Then a number of questions concerning the work were taken up, such as the advisability, in New York City, of lessons in bread making; whether some cooking should be done on the coal stove as well as on the gas burners, and similar problems. Then the importance of home work was discussed briefly, and finally the question raised whether it would be possible to agree that a certain meal should be regularly prepared by the children weekly, the school lesson to have direct relation to it. This appeared to be too long a step, and no agreement was reached. However, it seems that since that time most of the girls have quite regularly reproduced the individual dishes studied, and there is prospect that this work will gradually develop into the preparation of whole meals.

Another outcome of the visits to these parents should be mentioned. While, as has been said, the plan of the school work was little criticised, a number of isolated cases came to light where school and home practice had come into open conflict. In one instance a girl, in preparing a certain dish, had claimed school authority for using butter at the rate of about half a cup per person. Another girl had come home with the announcement that the laundry room in a home should have an independent entrance and should never open into the kitchen — certainly a rather mirth-provoking doctrine to people forced to occupy a three or four-room tenement. Even if such things are merely the result of misunderstanding by the pupil, it is evident how far one or two of them might interfere with the desired coöperation of school and home. The importance of coming to an understanding in all such cases was emphasized and prompt reports are expected from at least some of these parents, when they find themselves unable to approve of certain details of instruction, as reported.

A similar task was undertaken in another grade, where attention was being given to the proper setting of a table. One of the settlement workers suggested that probably a large proportion of the families concerned ate from a table covered with oilcloth and had a much smaller supply of dishes. The question was taken up for investigation, and when the canvass — made with due care — was complete, it appeared that fifteen out of the twenty families were checked with the "O. C." In consequence, some additional topics received attention, such as the proper way of cleaning an oilcloth, the advantage of having padding underneath and the kind, the advantage of tacking the padding to the table and the method, the setting of the table with very few dishes. In this same class the question of the children's coffee drinking was looked into in connection with a lesson in making cereal coffee. It appeared that all but one child drank coffee regularly, some twice a day, a few "only at night." This matter is being discussed with the parents as rapidly as the teacher succeeds in becoming sufficiently acquainted with them.

Other subjects, whose immediate social value appears at first thought less direct, give promise of abundant application in the life outside of school. The work in sixth-grade literature by Miss Messer is an example (see p. —). In the study of United States history (sixth grade) much attention has been given to the proper use of reference books, and from this has developed a Library Club which meets in the library room for an hour's study three evenings a week. Each of these periods is in charge of a student from Teachers College, who gives assistance and suggestions, helping the children to find the proper material on topics connected with their school work, or any others which they show inclination to attack in a serious manner. The work in nature study now bears strongly upon the raising of plants in the Teachers College hothouse, and it is hoped that, as the warmer weather comes on, the coöperation of the parents may be secured in encouraging the raising of plants and flowers for the home in window boxes and flower pots. Lumber sawed to the proper lengths will then be furnished to the children as cheaply as possible; the manual training period will give opportunity for putting the boxes together, while the nature study period will deal with the plants best adapted to this purpose, their planting, care, interesting characteristics and phases of growth.

Acquaintance with the families promises to make possible a more direct application of the art work. The children's own products have of course a somewhat limited value in the beautifying of the home; but definite knowledge of the æsthetic standards now prevailing there, with some idea of the general standard of living, will indicate how long and how expensive steps in this direction may be set before the children. One class is about to take up the study of the proper kinds of decoration, pictures, ornaments, and the like, for living room and dining room; this is to include the study of quite a number of pictures and their suitability for these rooms. It will be made as easy as possible for each child to secure a good reproduction of the picture he prefers, large enough to have some real value in the home, and at a price within the means of the parents. The coöperation of the parents will be sought in the purchase and simple framing of these.

The effort is being made to reach the home life through the teaching of games, though with much uncertainty as to the right games for the purpose and the right ways of teaching them. The older children (sixth grade) are at present giving two half-hour periods a week of school time to a somewhat scientific study of checker-playing, and this may be followed by a similar study of chess. If the parents can be influenced in the right direction, and habituated to playing games with their children, giving odds that will make the contest a real one, an important home pleasure and a new family tie will have been added to some of the homes represented. For the average family, card games present the greatest opportunity here, and if it is found that these can be taught with the approval of all the families concerned, they may be taken up in the same way.

The gymnasium gives opportunity for the teaching of good games that may be played on the street. This has been attempted to some extent and several distinctively gymnasium games, such as "two deep," "circular rope jump," are a frequent sight in the neighborhood of the school; also certain beanbag games that appeal to younger children. Most of the better group games, those which require real coöperation and team work, are difficult to handle with the forty odd children that are usually upon the floor at a time; but the effort is being made to adjust this, and perhaps with the coming of warm weather it may prove possible to divide the class and let one group take its game period in the

street, while the other uses the gymnasium. It is also expected that frequent game periods can be arranged outside of school hours, in which those children who wish can meet at some convenient place with a non-resident settlement worker to help organize the games.

The subject of the children's spending money, its amount and use, would seem an important one for the school to investigate and to deal with. It might perhaps furnish the means for very vital application of work in arithmetic. The savings bank facilities which many public schools now offer are a step in this direction. The question is whether the school cannot help the child materially in the spending as well as the saving of his money. If any way appeared for training children in common sense as to money values and in knowledge of what constitutes real economy in its use, it would seem worth while to take some time from the mere computing. Such work would require careful planning on the side of motive. The child would need greater inducements towards wise spending than he now has; but this might be effected in some measure by increasing the sums for whose expenditure he is responsible.

It would be an important step in this direction if an allowance for the buying of certain definite classes of things could be substituted in the home for the capricious handing out of pennies. In the course of a month the parents spend a fairly regular amount for the child's candy, toys, street car fare, and similar things, and in the course of six months an equally definite amount for such articles as his shoes and stockings. If this sum were turned into a weekly allowance for the child and he were made genuinely responsible for the securing of these things, its most advantageous expenditure might then become a vital school room topic. In the discussions about the proper qualities to look for and the proper prices to pay, the child could benefit by the experience of class mates as well as by the advice of teachers and parents; and the necessary anticipation of the larger items of expense would mean some training in foresight and considerable figuring, culminating perhaps in the development of a simple system of account keeping. We have not as yet felt ourselves close enough to the parents to undertake this in any systematic way, but a beginning may prove possible before the close of the year.

Various methods of securing touch with the families of the

school have had incidental illustration in the foregoing pages, and something should be said regarding the advantage of each method as indicated by our experience. First, of course, there is that acquaintance which comes through the children at school, though it might better perhaps be called knowledge than acquaintance. The children reveal a good deal through their general bearing and through incidental conversation, and they may be asked directly for the less personal family statistics, such as those regarding coffee drinking. But this serves merely as a means of discovering home needs. The meeting of the needs usually requires dealing with the parents directly. This may be accomplished either through parents' organizations or through visits to the homes.

The advantages of the former method are obvious. The German, Home Nursing and Mothers' Clubs of the Speyer School have already been mentioned. The Mothers' Club has been a valuable means of getting the more general questions of school policy before the parents. Thus the difficulty of securing uniform gymnasium suits was much lessened by the opportunity of appeal to this club, and by the prompt response of its members. Again, when a new and much more thorough system of physical examination was established, an explanation there offered of the plan and the reasons for it proved a means of avoiding much friction and misunderstanding.

Attendance at these meetings usually represents a third of the school families, which is certainly a very large proportion for a general meeting of this sort. But it is proposed that the lines of work before mentioned shall reach a much larger proportion of homes than one-third, and the subjects considered will often apply to one or two school classes only, so that they cannot well be discussed in detail before a meeting that includes parents of all children from kindergarten up. And it may be added that the influence of this club is very much limited as compared with that of a club of proportionate strength in a public school. Any policy agreed to by a third of the mothers in a public school would soon be brought before practically every family of the school, since most non-members would have near neighbors in the club and would consequently hear some discussion of the plans proposed. With our scattered families the Mothers' Club can have no influence at all on those who do not attend the meetings. The

isolated experiments with a meeting for the parents of a single schoolroom have been quite successful, though at the expense of considerable effort in preparation. Perhaps in time such meetings may be made regular and of great assistance in the work.

Visits to the homes can be relied on to furnish much that could hardly be obtained through the clubs alone, even under the most advantageous circumstances. One is repeatedly surprised, after having met all the members of a family in the school building, to find how much additional knowledge comes from even his first call at the home. Not only is a new and much more confidential relationship established, but his general estimate of the family is materially changed, the opportunities, limitations and needs of the children appearing in a quite altered light.

It is this kind of acquaintance with a large proportion of the families which appears to be a prerequisite for much of the work previously outlined. How to secure it, and through whom, is a question which the present year's work has not answered. It would appear, at first thought, that this would be the natural contribution of the settlement to the school; but it is more intensive work than is customary in settlements, and the resident workers have been very fully occupied with the activities inside of the house. Yet such visiting by a group of outside workers is out of the question; they could not gain access to the homes, neither could the school realize very materially upon any knowledge they might gain. Ideally speaking, the regular teacher is by far the best person, having readiest access, and getting at first hand the acquaintance she is to utilize. But since those of the Speyer School are critic teachers as well, any large amount of such work could neither be asked nor expected of them. Besides, it is often best that the visits be made during school hours, so that the children and their work may be talked over with the utmost freedom.

If some system of substitute teaching could be devised which would lighten the duties of these teachers in proportion as the critic work increases them, the matter of neighborhood work would be much simplified, and the results would then represent, in a large measure, what could be accomplished under ordinary school conditions — a very important consideration in estimating the final value of this work. If this is not possible, it would from the school viewpoint be desirable for some member of the settlement force to give much time to this work, doing perhaps a little

teaching in the different rooms so as to be identified more fully with the school in the children's minds, or at least becoming fairly well acquainted with the children and the quality of their school work. It is to be hoped that some such plan may make possible, during the coming year, a much more systematic attempt to carry out these expanded lines of school work, without limiting in any way the lines of distinctly settlement work now in operation. The reform of the school from a theoretical to a practical institution is the stake that is involved.

UTILITY AS A DOMINANT ELEMENT IN NEIGHBORHOOD WORK

By GEORGE DRAYTON STRAYER, A. B., Johns Hopkins University; Scholar, Teachers College, 1903-04; and CLIFF WINFIELD STONE, Diploma State Normal School, Oshkosh, Wis.; Scholar, Teachers College, 1903-04

The conclusions reached in this paper are the result of experience during the past six months with a group of boys, largely of Irish parentage, ranging in age from fourteen to eighteen years, whose only defined conception of utility was the commercial one, or whose experience in utility had been limited to the commercial side of life. The work was undertaken as an experiment, with a view to determining to some extent the nature of the work best fitted for settlement clubs or night school classes.

From the first it was our conviction that all the work undertaken should be educative, not merely entertaining. From the standpoint of the leader of a club, the easiest thing to do with boys or girls who are not in the habit of studying is merely to make the time pass pleasantly — to entertain by means of games or other activities, with little reference to their educative value. But while we do not wish to undervalue the efficiency of properly directed play or social intercourse as an educative factor, we do believe that pleasant loafing is not educative.

It has been contended that to arouse and keep the interest of the class of pupils designated above, the work undertaken must be dominated by commercial utility. The courses that are offered by the Young Men's Christian Associations and other similar institutions, seem to be organized on this basis. Bookkeeping, arithmetic, stenography, typewriting, and preparation for civil

service examinations constitute, in the greater number of cases, the principal courses offered. The questions in which we were especially interested, and concerning which we shall express an opinion in the light of our experience, are: May the aim in work of this kind be broader? May courses which cannot be measured by the increased wage capacity take a prominent place? Can such persons as these be brought to appreciate a higher utility? Do they recognize in their lives, or may they be brought to recognize, needs which can be measured only in increased ability to enjoy literature, art, or music? Also, if they are interested in these arts, are they willing and able to give pleasure by interpreting them to others?

A group of boys who styled themselves "A Dramatic Club" applied for admission to the Speyer School last October. We felt that such a group offered a particularly favorable opportunity for experimenting on the above problems. Upon closer acquaintance with the boys, we learned that "dramatic art," as they had known it, consisted of "sketches in cork." So far as we were able to learn, the boys had spent their time in committing to memory a few lines which, in their opinion at least, were funny, and in reciting these "sketches" for the entertainment of themselves and their friends. But when we asked them to recite for us anything that they had committed to memory, no one seemed to be able or willing to comply. The usual remark was, "O, we only had some 'sketches' that did not amount to much, and we have forgotten them now."

The first problem for the club to decide was the work to be undertaken. After considerable discussion, in which the boys took a very active part, and in which the directors of the club (namely, ourselves) exercised their diplomacy, some of the boys came to desire something worth while, but some still preferred mere entertainment. After parts of several meetings had been occupied in considering the desirability of different plays, the sense of the club showed that the choice lay between *Snobson's Stag Party* and *Julius Cæsar*. The directors of the club "saw" the influential members, and in the absence of the directors it was finally voted to take up *Julius Cæsar*. The aim of the boys at this time was to prepare as many scenes as possible and to present them before the "neighborhood social," and possibly elsewhere.

The school training that these boys had had ranged from the

completion of the fifth to that of the eighth grade in the public schools. All of the boys were regularly employed during the day, some of them in offices, others in stores in various capacities, one in a factory, and another as a driver.

Our first work was to help them to get the story of the play. This was done by encouraging home reading of the entire play, by discussing the political situation at Rome, the deeds of Cæsar, Pompey, and others, and by informal reading of the first scenes and of selections which throw light on the story. The boys had some difficulty in understanding the language used. No one of them had much idea of expressing thought by means of oral reading, and the idea of expressing feeling was entirely foreign to their experience. The directors of the club took their places among the boys as members of the organization, and in their turn read the part that fell to their lot. The boys seemed to recognize the difference between their own reading and that of their teachers, and learned gradually, after asking questions concerning the meaning of the parts which they did not understand, to express more thought and feeling in their own reading. After the first scene was fairly well understood, topics were assigned which required the reading of one or two acts, or the whole of the play. The boys were asked to answer such questions as, "What was Cassius trying to do with Brutus?" "What kind of man was Cassius?" "Do you think the play well named?" "What characters have a more prominent part than Cæsar?" "What other titles can you suggest?" The results were most gratifying, and their interpretation of the characters as portrayed by Shakspere surprised the instructors. When they had acquired some knowledge of the whole play, parts were assigned in the first two scenes and an attempt was made to "suit the action to the word." Each boy was in turn assigned each character, so that he had an opportunity to attempt to interpret the various thoughts expressed. Still later each boy was assigned some one or two parts, and encouraged to commit the words to memory.

Aside from their attendance upon the meetings of the club two evenings a week, the boys showed their interest in the work by taking the directors of the club to a lecture on Julius Cæsar. After having heard this lecture, they felt that they were sufficiently well acquainted with the play to question the lecturer critically concerning his interpretation of some of the characters,

and for some time after this they showed a lively interest in sustaining their own point of view by references to the play and to Plutarch, to whom their attention had been called by the directors. A real advance in the standards of the boys was also evidenced. *As You Like It, The Merchant of Venice,* and others of the better plays then appearing in the city were spoken of favorably, and the boys told of their acquaintance with these plays as presented in the local theaters. On the other hand, the sensational, trashy plays, with their portrayal of all sorts of crime, were condemned. One of the boys said that he did not believe that an actor who took part in such a play would be able to interpret a play of Shakspere's.

In spite of this interest, however, which was undoubtedly genuine, the boys became somewhat discouraged in their attempt to commit to memory the words of the first two scenes, and they found the period of work somewhat tiresome. This was shown by more frequent absences. The directors sensed a crisis. An attempt was made to stimulate interest through the motive of acting the play; but as the only available audience was the "social club," with whom the boys had no special sympathy, the desire to give the performance was practically neutralized by the fear of appearing before an audience. There was an evident lack of motive for club attendance. The directors felt that the work must get nearer the every-day needs of the members. After a careful consideration of the environment of the boys, it was believed that commercial arithmetic and bookkeeping would best meet this need. The suggestion that this line of work be added met with the hearty approval of the club.

In order to add these subjects and to continue to make fair progress with the literature, the boys willingly met three times a week, instead of two, as formerly. This greater variety, together with shorter periods on any one subject, seemed to succeed better. A more regular attendance made possible better rehearsals of the play, and after two or three weeks the boys had secured sufficient hold on the first two scenes to warrant their setting a time for the initial presentation. The date being set, the directors felt that a second crisis was imminent. The boys must be ready and must appear on that date, if possible. In order to accomplish this it was necessary for them to come on extra evenings and to spend most of the time upon the play. On the day announced the scenes were creditably given. They were prefaced by a short extem-

poraneous address by the president of the club, in which he outlined the setting of the play, and were followed by a similar talk in which one of the boys told the remainder of the story.

In our estimation, to have accomplished so much as this was worth a great deal to these boys. They had set out to do something, and had persevered until they had accomplished their purpose.

A week later the question of work for the next three months was taken up by the club before either of the leaders had arrived, and when the question was put the boys replied that they had been talking the matter over and had decided that they wanted to do something more in the way of the study of literature; that they might even be willing to attempt some composition themselves, which they would present to the club. It was also decided that a few minutes might be spent each evening in telling good stories. They thought it best to continue also with the work in arithmetic and bookkeeping, but only as *one* of the three lines of work — one of the things which they thought ought to have a place in their work — not as the dominant element.

This decision of the boys, after their previous experience, seemed to the leaders particularly significant. They undoubtedly recognized that there was for them in the study of literature a real utility. They had come to realize a higher utility. They had found literature usable, and therefore desired to secure more of it. They had secured conscious recognition of at least two phases of utility — the commercial and æsthetic; and they had, at least unconsciously, begun to appreciate the altruistic phase.

Our conclusion is that while utility should be a dominant element in settlement work, it need not be, and therefore should not be, limited to commercial or economic use alone. We believe that our experience shows (1) that club work may be more than amusing — that it may be educative; (2) that average boys, immersed in the commercial world, are capable of appreciating the utility of the higher things in life; (3) that one of the best methods of bringing about such an appreciation is to provide an opportunity for the higher life to become expressed in action and thus to develop.

THE PLAYROOM AT THE SPEYER SCHOOL

By LAURA E. McDOWELL, Diploma State Normal College, Albany, N. Y.; Professional Student, Teachers College, 1903-04

The playroom at the Speyer School has been in operation since last September. Miss Finn, who is in charge, visited numerous houses and found that the mothers were very much pleased with the idea of having a room in the neighborhood where their children could play after school. Many said that their children had nowhere to play except in the streets, and that a playroom would be a blessing indeed. Many children came from the first, and the numbers have increased until now there is an enrollment of over nine hundred, with a daily attendance of from fifty to eighty, the limit as to age being practically ten years.

The aim is not only to keep the children off the streets, but also to help them to form right habits through playing games; that is, it is educational. And while it is not easy to measure the success of particular efforts in this direction, those who have been engaged in the work are convinced that a great deal can be accomplished in this way. The happy faces of the children, the cordial relations existing between them and the supervisors, and the genial air of freedom and good will in the room, are indications of this.

The room is open each school day from 3 to 5 o'clock. The children come in at any time during those hours and stay as long as they like. At the closing hour there is a formal dismissal; the children put away the games, sing, and then march out in order, saying "good night" to Miss Finn as they leave the room.

The following games are provided: jackstraws, ring toss, checkers, dominoes, four games based on parchesi, snap, flag game, lotto, anagrams, fish pond, faba baga, sliced animals, and picture blocks. There are also building blocks, soft rubber balls, bean bags, and paper dolls.

The games are always kept where the children can get them and at first, in order that there should not seem to be any schoolroom restraint in the playroom, there was no direction as to choice of game or manner of playing. But it was soon thought advisable for adults to help in the selection of games and to

join in the play. Because of the number of children, Miss Finn alone could not cover the ground, and assistants had to be obtained. Since the establishment of such supervision, although adequate assistance has not yet been secured, the whole atmosphere of the room has changed; the children now ask to be taught to play, they are much more interested, and they are less restless.

My first observations were made early in the year, while the children were still practically left to themselves to play as they pleased. The first thing that attracted my attention was that they changed their games very often. There was a constant stream of little people going back and forth between their seats and the table where the games were kept. One boy got eight different games in twenty-five minutes. A child seldom played the same game twice in succession, and often went through the whole list in one afternoon. There seemed to be two reasons for this. One was that unsuitable games — usually too difficult — were selected, little ones five years old often taking dominoes and checkers. Another was that the children seldom knew how to play the games — playing them only in part, or entirely in the wrong way. This was true even of the simplest ones, such as fish pond and lotto.

Another thing that impressed me was that the children always played in twos. It had apparently not occurred to them that the keener spirit of competition aroused by a larger number of players would make most of the games more interesting. There was no sign, either, of a wish to have others share in their enjoyment. Then, again, the children were often not honest in their playing. Although this was in part due to a lack of knowledge of the rules, it was often deliberate dishonesty. Those who knew the game well, and who made their opponents follow its rules, would now and then cheat abominably themselves.

It seems evident from these observations that if children are to get the greatest benefit out of this work they must be taught how to play games as, in the schoolroom, they are taught how to study.

It is not until the rules of a game are understood that children are called upon to show honesty and justice in their treatment of others. And it is not until these and similar character-

istics are brought out in the play, that the games are of the greatest worth. Kilpatrick, in the *Fundamentals of Child Study*, says: "The great lesson of laws as a means of freedom is nowhere so well taught as in well directed and orderly play. A teacher who can successfully lead children to play happily in accordance with whatever rules are necessary, is not only forming a public sentiment for orderly and fair play, but she is preparing the children for citizenship more effectually than she can possibly do in the schoolroom, where the children have not so keen a personal interest in what is being done."

With the present large enrollment, and the small amount of assistance available, it is impossible to do much for individuals. Miss Finn expects later, however, to limit the daily attendance by allowing only certain ones to come on each day of the week, when it will be possible to accomplish more. In order to facilitate the instruction of the supervisors, it would probably be better to have the children play for the most part in larger groups, since it is impossible for one or two persons, even with the help of those older children who know how to play, to look after and give material help to twenty or twenty-five groups of twos. To have the children play in large groups is important from another point of view also. There is inspiration in numbers; and undoubtedly a considerable number is one of the best means of arousing enthusiasm and of so getting children into the spirit of the game that they will insist upon fair play.

It is well, also, to select games that are not too complex; even grown up people enjoy those with simple rules. The games in use in the playroom are suitable, so far as the range in difficulty is concerned, but the proportion is not good. There are too many that require thought power as a distinct element in the pleasure; too many that are enjoyed only by children ten years of age and over, such as checkers, dominoes, games based on parchesi; and there are too few that are suitable for the youngest children. In fact, there are really no games for the very little people; they have only hollow cubes, building blocks, soft rubber balls, and paper dolls.

Of the games suitable for children from six to ten there may be found a considerable number. Some of these appeal especially to the imagination, some have only a few simple rules, others test more the physical powers. Under the first head are

the sliced animals and picture blocks; under the second are anagrams, lotto, snap, and the flag games; and under the third, jackstraws, ring toss, faba baga, fish pond, and tiddledy winks. These are the different types of games that the majority of children who come to the playroom would enjoy.

Another thing that has been found of importance here, as in school work, is variety. It can be secured in one way by having only a part of the games accessible each day; in another, by completely changing the plan from day to day. Sometimes, for instance, the floor could be cleared, and all the children, young and old, could join in such games as spin the platter, drop the handkerchief, hide the thimble, soap bubbles (perhaps hardly a game), and similar plays. These appeal to the child's love of activity, and the rules are simple. On other days they could form smaller groups for other kinds of games. The playroom will in time, I believe, become a practical and valuable adjunct to every primary school.

POSSIBLE VALUES OF A SCHOOL MUSEUM

By B. R. ANDREWS, A. M., Cornell University, Supervisor of the Educational Museum, Teachers College

The Educational Museum of Teachers College bears to the Horace Mann and Speyer schools the relation of a school museum. In this regard, it carries on two lines of work: it loans photographs, lantern slides, and various illustrative materials and apparatus for use in the different grade rooms; it also arranges and displays in its exhibition room exhibits which the pupils of the schools visit. Toward both these lines of work it maintains an experimental and constructive attitude. It seeks to discover for the school the possibilities in the use of illustrative material and teaching appliances in the grades, and in the development of the school museum as an educational agency. The educational museum has other relations than the ones mentioned, but the present paper will confine itself to these two.

The first and more important of these functions is the loaning of photographs, framed pictures, lantern slides, and illustrative objects of various sorts, for use in the grade rooms by the regular and student teachers. The problem is, first, the develop-

ment of a library of illustration proper and adequate to the work of the school, from kindergarten through high school; and, second, the utilization of these collections to their highest efficiency. The collections now in the museum may be described under three heads, (1) photographs, (2) lantern slides, (3) objective collections.

1) There are some 3000 photographs, platinums, French and German color prints, and cheaper forms of pictorial illustration mounted and catalogued by a drawer system, the Dewey decimal classification being used. The topics treated include geography, history, art, literature, and nature study. The collection in geography may be regarded as typical. The pictures are grouped in drawers according to geographical classification so that requests for illustrations of the Gulf States, or of Alaska, can be met by simply turning to the proper drawer. Further, cross references as to topics are to be provided in a card catalogue, so that pictures of "rivers," "mountains," or other geographical topics can be at once found. In addition to these mounted pictures, there are over 1000 framed pictures hung about the college and school buildings; these are in charge of the museum and are available for circulation and temporary use in the grades.

2) There are about 3000 lantern slides covering much the same topics as the photograph collection. Their classification is also similar to that of the photographs.

3) The principal objective collections include: school apparatus for teaching mathematics, geography, and history, owned primarily for exhibit in the museum, but in many cases loaned to supplement the teaching equipment of the schools; illustrative objects — prehistoric implements, carvings illustrating Chinese life, mounted birds, mineral collections, Indian pottery, and industrial exhibits. With these should be mentioned similar objective collections, kept in other departments of the College, but administered by the educational museum as far as loans to the schools are concerned.

The collections in all three lines are being continually increased. An annual appropriation makes possible the purchase of many new materials, while many others come through the courtesy of manufacturers and firms. A small library of catalogues of dealers in school apparatus, pictures and materials, is maintained in the museum for ready reference, and is at the

service of persons desiring information regarding sources of materials.

The materials are circulated much as books would be. Teachers send in requests for pictures illustrating a particular topic, or for lantern slides, or other materials, and the objects desired are delivered to their rooms. It has been especially helpful for the museum workers to come into personal touch with the teachers by conferring with them at intervals, and so learning future as well as immediate needs.

Some indication of the extent to which materials are used is shown by the circulation for the semester ending February 1, 1904: lantern slides, 1551; photographs, 590; framed pictures, Indian and other materials, 140. (The first figure, for slides, represents circulation in the College departments as well as in the grades.) More illuminating, perhaps, are the following actual items taken from a week's record of services. In Horace Mann School: kindergarten, framed picture of King Arthur and an equestrian model of a knight in armor; first grade, pictures of Arctic life; fifth grade, pictures on geography of England and France, also lantern slides on the same topic, to be used by three teachers in this grade in succession; seventh grade, remove series of framed pictures illustrating Egypt and replace with New Zealand series. In Speyer School: third grade, Pueblo baskets and samples of wool; fourth grade, railroad map and pictures of South America; fifth grade, pictures of period of discovery, American history. In this way materials are made to circulate from room to room, and thus a maximum use is secured without needless duplication. The economy in the systematic circulation of framed pictures is alone an item which is worth considering and which most schools have so far neglected.

Space does not permit further treatment of the illustrative collections of the museum, and their utilization in the schools. Suffice it to say, the work of the educational museum in this regard is based on the following considerations:

1) That the proper use of pictorial illustration, apparatus, materials, and other objective aids increases the efficiency of instruction, is a principle generally agreed upon, due regard being given to the condition, "proper use."

2) The determination of "proper use," *i. e.*, the value of

particular materials, apparatus, and equipment, can only be gotten at by investigation and experiment. This is the reason for the experimental attitude of the museum. Typical questions worth examining in this field are: the fundamental one of the general value of visual and objective illustration; the value of permanent schoolroom decorations; the usefulness of this or that piece of apparatus suggested for teaching mathematics or geography; the limits of usefulness of materials now in use, say the sand-table — may one use it to outline Cæsar's battles with high school boys, as well as to illustrate Indian life with third-grade pupils? The ordinary school museum need not assume this distinctively experimental attitude; but the appropriateness of the work in a professional school of education is obvious.

3) Finally, our experimentation and experience support the conclusion that any school or school system might, with advantage, organize its illustrative material in a central bureau such as our own. Reasons of economy and educational efficiency will uphold such action. In few places in a school will organization — in this case, classification, cataloguing, and systematic circulation — so thoroughly justify itself.

In the second place, the educational museum arranges, in its room in the College, exhibitions which the pupils of the schools visit. These exhibitions are in the nature of temporary displays in some field of interest, such as geography and travel, art, history, literature, education. Our experience with exhibitions of this sort, it may be said at the outset, indicates that they form an educational agency which could with advantage be employed by the public school. The value of such exhibitions depends, first, on the selection of things which are correlated with the actual instruction of the school; and, second, on the systematic visitation of them by the grades. The exhibitions are in a way an enlargement of the collections often arranged in grade rooms by teachers. But the fact that they are organized on a larger plan and that they are displayed in an exhibit hall permits the whole school to participate in their value. The exhibitions arranged by the school supplement the visitation of public museums and in a way have advantages over it. For example, there is freedom as to topics selected for museum treatment, so that close correlation with the curriculum or with topics of public interest is possible; and

there is the greatest convenience in visitation since the exhibitions are held in the school building. The exhibitions have a second value in being of public interest and therefore visited by adults, thus utilizing in a new way the school and the school building as a cultural center in the community.

The nature of the work suggested as one function of a school museum can best be described by an actual example. An exhibition on Japan, including the life, industry, education, and art of the Japanese, was given by the educational museum during three weeks of March, 1904. The subject was related to the instruction of the schools in geography, history, art, and especially in current topics, and was, therefore, very timely. The exhibits included photographs, prints, maps, school work, art, industrial products, and other objective representations of Japan. As far as possible the pictures and objects were grouped systematically. Japanese costume was represented by ordinary and ceremonial kimonos, by the peasant's grass rain coat, and by other actual articles of wearing apparel; these were supplemented by photographs, and by dolls in actual costume. A dozen or more samples of Japanese food were shown, from familiar rice and tea to unfamiliar bamboo-sprouts and seaweed. Art was illustrated by typical samples of porcelain, lacquer, and wood carving; by beaten, chased and cast metal work; by prints and examples of classical and modern painting. Education, by the work of Japanese children in composition, geography, arithmetic, art, manual training, and other subjects. Industry, by samples of papers and woods, and various smaller articles, and by photographs. There were models of a Japanese house, and tea-house, and of house furnishings.

The display of photographs was, in general, arranged by topical groups, one of the most interesting representing the Chinese-Japanese war. Descriptive labels were liberally used, some relating to special pictures and objects, others treating general topics, such as "food," "clothing," and "amusements." The latter were from one-fourth to one-half page of type-written matter in length. The teachers of the Horace Mann and Speyer schools were furnished a descriptive list of the principal groups of exhibits, with their location in the exhibition room. This syllabus was placed in their hands some time before the beginning of the actual visitation by the grades. It contained the suggestions that "definite topics be aimed at, and that the children come with the

purpose of answering inquiries aroused by preparatory discussion; that topics be selected suitable to particular grades, *e. g.*, — the Japanese house — what materials? what arrangements as to doors, windows, rooms, carpets, furniture, decoration? or, Japanese schools — what divisions, what subjects studied? etc."

The exhibition was visited by the two schools from the third grade up, and by the second grade of the Horace Mann School. In addition, Columbia University students, children from the public schools, and adults swelled the attendance to about 3000. In connection with the exhibition, two lectures were held — an illustrated lecture by an American gentleman formerly resident in Japan, and a symposium address by four Japanese speakers. These lectures contributed in a great measure to the success of the exhibition.

The difficulty of accurately measuring the results of such an exhibition is obvious. It is, in part, that encountered in an attempt to measure achievement in any educational work; in part it is due to the particular nature of the results obtained in museum work. By the last, I mean the fact that the value of museum visitation lies not only in the exact information imparted (which one might indeed obtain by testing), but further in the ideas gained only in a general way, resulting in a liberalizing mental experience comparable with that produced by travel. Without attempting to measure in any exact degree the educational values involved, there may still be cited bits of evidence tending to show these values.

1) The attendance — 3000 in three weeks — meant much. People came because they wanted to; and when they reached the museum room they acted as though they had a purpose in coming. Pupils who came with their grades, in some cases came individually for a second or even a third visit. After due allowance is made for the present inflated interest in Japan, we can still assume a considerable desire to see real things.

2) The attitude on the part of the children toward the exhibits was quite commonly one of active inquiry; they talked together about the things and called each other's attention to those of special interest. They frequently asked questions of the persons in charge.

3) A club of six boys, 17 to 19 years old, from the Speyer Settlement, visited the exhibition one evening, and at their next

club meeting, on their own initiative, discussed its most interesting features.

4) One or two sentences from a girl of 12 who came three miles to see the exhibition are worth quoting: "It seems perfectly wonderful when we think that all this work (wood carving) is done by hand." A common enough thought, but one worth having a child experience at first hand. Another sentence: "I thought it very nice to see a real pillow like the Japanese use instead of the picture of one." The argument for the use of real things in instruction gets support here from high authority — the child itself.

5) In most of the visitation by grades, the most favorable conditions were created. The proposed visit to the museum was discussed beforehand, and the children came with definite inquiries in mind. In the exhibition room, where half an hour was usually spent, the exhibits were first discussed and explained in order by the writer, and in addition, the children were allowed a period of free observation. Later, in the grade room, the material acquired was worked over and elaborated. The results from this directed work were such as to warrant both the previous preparation and the active direction given the children on the spot. Of the two factors, the latter is by far the more important. Some negative evidence on the value of direction is given in the next section.

6) For the sake of test, the pupils of a single room (Speyer School, fifth grade) were brought to the museum without preparation, and were allowed entire freedom in the exhibition room, simply being told to see all they could. The results of this visitation were examined by asking the pupils to write answers to the following questions: (1) Name as many different things as you can remember; (2) What was the most interesting thing you saw? Why? (3) Did you like the pictures more or less than the other objects? Why? (4) Tell the difference between Japanese clothing and ours; or, between Japanese food and ours.

Eighteen of these pupils wrote papers. The first question was answered by lists, in which different items appeared as follows: clothing, 27 times; pictures, food, and carpenter's tools, each 20 times; money, persons, swords, each 18; books and sewing, each 16; ancient Japanese armor, and school and school work, each 14; maps, 13; masks or false faces, temples (pictures),

each 10; dishes, police court punishment (model in wood carving), tomb (model of Taj-Mahal, India), each 9 times; house (model), toys, statues (pictures), each 8; embroidery, 7; drawing, pillow, pocket-book, each 5; charts, games, castle (picture), boats (pictures), each 4; cooking utensils, flags, writing, gymnastics, painting, plants, soldiers (last four, pictures), each 3; baskets, bags, dog, forts, farmers, wrestlers (last three, pictures), each 2; cat, curtains, stamps, and following pictures — birds, bridges, flowers, hotel, roads, shops, theater, trees, war prints, weaving, each 1. This list is interesting as showing the sort of things fifth grade pupils took especial notice of when left free in the museum room for a half hour. It is fair to assume further that each child could have given some idea regarding each of these objects he noted. The number of items given by different children varied from 19 to 36, the average being 24. Of the items listed, 74 refer to pictures, and 285 to objects, such as models, charts, books, and other real things. Thus measured, four times as many objective exhibits as pictorial representations of objects gained the attention of the children. This preference is one we might expect on common sense grounds, but like most common sense principles, it is one worth establishing by experiment.

The second question — "the most interesting thing you saw" — was answered differently by almost every child. The answers were: swords, 3; money, 2; wood carving of Chinese court scene, 2; and the following 1 each: Japanese lady attendant, straw rain coat, small figures of children, a piece of embroidery, Japanese etiquette (picture), armor, "maps made by school boys and sewing by school girls," sewing and millinery, wood carving, picture of Buddha statue, "colored pictures, especially war pictures." The number preferring objective exhibits was 15; pictorial representations, 3.

The third question — "did you like the pictures more or less than the other things?" — was intended to throw light on this same point. 8 of the 18 preferred pictures to "other things"; and 3 more, interpreting "pictures" to mean "drawings," preferred pictures made by school children. The preference here falls about half way between pictures and objective exhibits. The wording of the question, using the word "pictures," doubtless favored this choice by suggestion. The evidence of questions 1 and 2 seems more important on this point, for

the children were then choosing without bias. The conclusion that objective exhibits are generally of greater value in exciting attention seems therefore sustained.

The fourth question — a choice between a comparative description of Japanese foods and Japanese clothing — was set to test the amount of information secured on definite points by this free examination of exhibits. In every case the information given was meager, usually in one or two sentences; in the most ample description, there were 72 words. 11 wrote about clothing alone; 4 about both food and clothing; 3 about food alone. The statements were in general true to fact, but brief. One would infer that while the children saw many different things when moving about without direction, they were not successful in gaining a large amount of information about particular exhibits.

Summarizing the results with this grade, the evidence goes to show that children, even unprepared and without guidance in museum visitation, do succeed in seeing a great many different things and in gaining various ideas about them; yet the amount of information regarding individual things is not great. The results suffer in comparison with those secured by observation under direction.

7) An additional bit of evidence on the exhibition is the results from a class of deaf-mute girls, 15 to 18 years old, who spent two hours in the museum, most of the time under direction, examining the exhibits and securing such information as they could by reading the lips of the writer. Of the thirteen compositions written on the visit, all showed evidence of information accurately retained, and in nearly all there were comments reflecting minds actively at work. "I was greatly astonished at the exhibit, for I never before knew that the Japanese were so clever. The work was really beautiful." "I was very much surprised to learn that Japanese children have much the same games as we." "In looking at the ivory carving, I thought I would like to give it to my papa for a watch-charm." And there was some similar phrase in nearly every paper. Imagination was noticeable in four or five instances. Note, for example, this pretty conceit from a girl who could not hear: "I do not think I would like to live in a Japanese house if I could hear, for I would be disturbed by the noise." In at least five cases memory of facts acquired verbally seemed unusually good. In four cases,

additional details of objects observed by the individual herself were included. In three compositions, detailed information secured by reading the labels appeared. The pupils described in enthusiastic terms their enjoyment of the exhibition.

8) Perhaps half the visitors to the exhibition were adults. Observation of them, supplemented by personal testimony, indicated that to many the exhibition was a source not only of interest and enjoyment, but of new ideas and broadened sympathies.

Such items of evidence as these regarding the Japanese exhibition, and similar evidence from other exhibitions previously held, support the thesis that the school which will arrange exhibitions of an educational nature will serve itself and its community in a new and efficient way. Topics which are desirable for exhibition treatment, and which would correlate with school work, are numerous: for example, in history, "Colonial life," "the Civil War," and similar topics; in geography, particular countries perhaps, such as "the Philippines," "Russia," "Panama and the canal"; and so on in the many other fields of art, industry, and science. Materials for exhibitions will be partly at hand in the illustrative collections of the school museum; in part local sources will supply them; and, in part, they will come in time, the writer believes, as loan exhibits from our large central museums. South Kensington Museum, London, has been doing extension work of this sort for several years, and in 1897 its annual loans amounted to one-quarter of its entire collections. Our American museums will not be long in embracing this opportunity for increasing their usefulness; or a special circulation museum might be developed to meet this need. Indeed, the economies of the situation seem to demand central management and the circulation of complete collections ready for display, for which local schools would simply supply an exhibition hall, with an auditorium for supplementary lectures.

In relation to the school itself, such temporary exhibits would find their justification in their educational value to children; in relation to the community, they would be justified by utilizing in a new way the school buildings outside of school hours, and by helping make the school a culture center for adults. Upon young and old, such exhibitions would exert an influence liberalizing and humanizing in broad but efficient ways, in that they would develop in the individual a sympathy with fields of knowledge,

whether of science, art, history, or literature, which lie outside his own.

In brief, then, the experience of the Educational Museum indicates that two functions may be tentatively assigned the school museum:

1) The development of collections of pictures, lantern slides, objects, apparatus, and illustrative materials, adequate to supplement instruction in all subjects from kindergarten through high school. In this service, the school museum is not a place of exhibition but rather a storehouse of materials organized for systematic circulation. Its function is to furnish teachers better objective aids in their regular instruction.

2) The maintenance of an exhibition hall, less for fixed permanent displays (though these will have a place), than for temporary exhibitions in various fields of human interest, on topics which are related to the school and the life beyond school. Systematic visitation by school children, and supplementary lectures for children and adults, will help to realize the full possibilities of such exhibitions.

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